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Checkoffs

New Approaches to Funding Research, Development, and Conservation Programs

Jere L. Gilles
Department of Rural Sociology
University of Missouri

Technical Paper No. 53
April 1997

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Productive Sector Growth and Environment Division
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Contents

Foreword

Since Congress established the Development Fund for Africa (DFA) in 1987, the U.S. Agency for International Development (USAID) has been challenged to scrutinize the effectiveness and impact of its projects in Africa and make needed adjustments to improve its development assistance programs. Structural Adjustment programs have been adopted by many sub-Saharan African countries — often with reluctance — and some significant economic development progress has been made.

As donor agencies face severe cutbacks and restructuring, and less assistance becomes available to developing countries (not just in sub-Saharan Africa), new ways must be found to channel declining resources to new institutions their most effective and productive uses. Donor agencies like USAID, therefore, are increasingly looking to institutional arrangements in the agriculture and natural resources management sectors to sharpen competitiveness, with agriculture as the dominant sector of sub-Saharan African economies and the potential catalyst for generating broad-based, sustainable economic growth.

The USAID Africa Bureau's Office of Sustainable Development, Productive Sector Growth and Environment Division (AFR/SD/PSGE) has been analyzing the Agency's approach to the agricultural sector in light of the DFA and recent experiences of sub-Saharan African countries. This publication reflects some of these efforts.

This publication is part of a Sustainable Finance Initiative (SFI) Series.* The intent of this publication series is to make information and lessons more broadly available regarding innovative financing mechanisms and sources. The audience for the SFI series is practioners in Africa, including USAID Field Missions, African organizations attempting to develop new mechanisms, African funding agents, and other donors, as well as firms and individuals providing technical assistance to these groups.

The SFI makes available, in traditional print form as well as electronic versions, this publication as well as several others. The primary purpose of this series is to provide those interested in sustainable finance with a set of information resources that:

- describes the principles and tools of sustainable finance;
- provides up to date examination of case examples of sustainable finance;
- reports on meetings that discuss sustainable finance; and
- presents SFI program activities and results.

The SFI is a joint effort of the World Bank, USAID, and two multi-donor bodies — the Special Program for African Agricultural Research (SPAAR) and the Multi-Donor Secretariat (MDS). The SFI aims to help build capacity through focusing on African agriculture and natural resource management agencies. The SFI works with these African agencies to help create new — and more sustainable — mechanisms and sources of funding for national needs and initiatives.

To make this publication series most effective, the documents are written not only to accommodate the point of view of the African institutions undertaking sustainable finance programs, but also from the viewpoint of governments, potential funders, and other stakeholders. Thus these publications can be used as part of the efforts of agriculture and natural resources management institions to build coalitions and to inform stakeholders about the "art of the possible" in sustainable finance.

David A. Atwood, Chief
Productive Sector Growth and Environment Division
Office of Sustainable Development
Bureau for Africa
U.S. Agency for International Development

* A list of the anticipated publications in this series can be found on the inside front cover of this report.

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Several colleagues at the University of Missouri contributed to the formulation of this handbook. Nicholas Kalaitzandonakes, Michael Nolan, Elizabeth Dunn, Kenneth Pigg, Corinne Valdivia, Bill Weibold, Bruce Bullock, Nicoline de Haan, David Albers, Marilyn Himmelberg, Tonya Sutton and Karen Bradley all contributed to this effort. Robin Albee prepared the two case studies that appear here.

This handbook was written under the Sustainable Funding Initiative for Africa, grant number AOT0478-G-4192-00 from the U.S. Agency for International Development. The contributions of the employees of the technology development and transfer unit (AFR/SD/PSGE/TDT) is also acknowledged as well as Moctar Toure of SPAAR.

While all of the above persons contributed to the development of this handbook, any errors contained within this document are entirely those of the author.

Executive Summary

WHY CHECKOFFS?

Shortages of funds are preventing many African institutions from meeting national needs for agricultural research and resource management. Local funds are not sufficient to provide adequate operating budgets and donor funding is both unstable and unlikely to be a long term source of funding for African institutions. There is presently a critical need for African institutions to develop non-traditional sources of funding to complement and supplement existing funding sources. Checkoffs are one such funding source.

Checkoffs are self-imposed taxes paid by groups of producers and consumers to fund programs in agriculture and natural resource conservation. Funds collected in a checkoff are used to finance programs of interest to checkoff contributors. Typically these funds are used to supplement the funding of publicly funded programs or to fund programs that the private sector is unable to finance.

Many Africans may not view checkoffs as a non-traditional funding source because of their resemblance to the levies and cesses that are used in many countries to fund research and promotion for export crops. **Checkoffs <u>are not</u> a type of levy.** Levies and cesses are taxes imposed on the producers of export crops to support research, extension and development for these commodities. They are only viable for major export crops and must be national in scope to generate sufficient resources. Cesses and levies are not effective mechanisms for supporting the production of crops produced for local markets or so called minor crops.

Checkoffs are much more flexible than levies or cesses. Checkoffs can be successfully utilized for a variety of purposes in a wide number of settings. Levies and cesses can only be effective funding tools when almost all the benefits of a checkoff accrue to those who pay it. Checkoffs can be used to support activities from which both contributors and the general public benefit. For example, checkoffs can be used to support the production of domestically consumed products, to preserve endangered species, to improve the production of minor crops, or to address the specific needs of a small region. Levies and cesses on the other hand are only efficient in the case of major export crops. Levies and cesses work best when they finance autonomous institutions while checkoffs are designed to foster partnerships between public agencies and the private sector.

The strength and flexibility of checkoffs as a funding mechanism is due to the fact that allocation of checkoff funds is controlled by the contributors themselves. Checkoffs must be approved by a majority vote of contributors before they can be initiated and contributors retain the right to cancel a checkoff by a majority vote. In addition, money collected does not go directly to the national treasury or any government agency. Checkoff funds go into a trust fund that is administered by a checkoff organization which represents contributors. These organizations are funding agencies with small staffs and low overhead. They identify projects to fund with checkoff funds and give grants and contracts to public agencies to carry out these projects. Because the money is placed into projects of a specified duration and is not locked up in salary and wages, these organizations can easily shift priorities as circumstances change. In addition, these mechanisms enhance cooperation between public agencies involved in agriculture and/or resource management and their clients.

ORGANIZING CHECKOFFS

Checkoffs can only be established if they have the full support of the groups that will pay for them and the groups that will utilize the funds generated by them. Thus, the first step towards the creation of a checkoff is the organization of a working group made up of potential contributors and recipients of checkoff funds. Normally this would mean representatives of the producer and consumer groups that would pay a checkoff and leaders of the agricultural research and resource management agencies that would benefit from the establishment of a checkoff. The working group is responsible for conducting feasibility studies, for proposing the checkoff and for gaining the support necessary to create a checkoff.

Two types of feasibility studies must be conducted — financial feasibility studies and organizational feasibility studies. For a checkoff to be financially feasible, checkoff fees must be easy and inexpensive to collect. Consequently checkoffs are only feasible when markets are well organized. More importantly, the working group must identify a group of specific projects that could be funded by a checkoff and are at the same time attractive to contributors. Once the projects are identified, it is easy to evaluate whether a checkoff will generate enough funds to support them. Organizational feasibility studies are more complex than financial ones. The purpose of these studies is to determine how a checkoff must be organized in order to operate efficiently and to gain the support of contributors and government officials. The principal issues that must be dealt with in studies of organizational feasibility are the issues of accountability. Every checkoff will be organized differently depending on the levels of trust among the participants in the checkoff. Examples of organizational solutions to problems posed to checkoff organizers in the past are presented in the appendices of this handbook.

The handbook also outlines the roles that governmental agencies and international donors might play in the establishment of checkoffs. These roles are relatively minor but governments may be called upon to create enabling legislation for the formation of checkoffs or to periodically audit checkoff organizations. In some cases, ministries may be represented on the boards of checkoff organizations.

Both international donors and local governments can speed up the process of checkoff development by contributing to the working groups charged with organizing specific checkoffs.

Finally, this chapter contains three appendices which are case studies of three different types of checkoffs. A checkoff organized by about 60 fruit farmers in one U.S. county to support research, a checkoff organized at the state and national levels to support research, and product promotion and a primitive checkoff organized by a hotel chain in Africa.

Glossary of Acronyms and Abbreviations

CMDT	Compagnie Malienne pour le Developpement des Textiles
CRC	Carambola Research Committee
IFUS	Institute of Food and Agricultural Science
KARI	Kenya Agricultural Research Institute
MSA	Missouri Soybean Association
MSMC	Missouri Soybean Merchandising Council
NGO	nongovernmental organization
TFGSF	Tropical Fruit Growers of South Florida
TREAC	Tropical Research and Education Center
USAID	United States Agency for International Development
USB	United Soybean Board
USDA	United States Department of Agriculture

1. How to Use This Guide

WHAT IS THE PURPOSE OF THIS GUIDE?

This guide is an introduction to checkoffs, an innovative mechanism for financing environmental protection, agricultural research and agricultural extension. Checkoffs are self-imposed levies on consumers, producers or industry groups that are used to fund the activities of public agencies. Checkoffs are one solution to the funding crisis currently faced by African agricultural research and environmental protection agencies. They provide additional funding for public agencies to serve their principal client groups. They have the advantage of increasing funding for public agencies in a way that builds support for these agencies from the private sector.

WHO CAN USE THIS GUIDE?

This publication is written for African leaders in the public and private sectors who are interested in agricultural research and environmental conservation. The leaders of public sector organizations face the challenge of finding funds needed to conduct research and to protect resources. This handbook can help them examine one alternative for solving their financial problems. The guide is written so that it can be shared with representatives of the private sector, donor agencies, African treasury ministries and members of parliament.

WHAT IS IN THIS GUIDE?

This introductory handbook on checkoffs has two sections. Part 2 of this guide makes a case for checkoffs and describes their basic elements. This section includes a description of checkoffs and a discussion of their unique characteristics as well as a discussion of their advantages and disadvantages. The end of Part 2 discusses those entities that must participate in checkoff development as well as the minimum requirements for a successful checkoff. The purpose of this section is to familiarize the reader with the checkoff option so that they can decide whether checkoffs represent a viable option for financing their organizations activities.

Part 3 is designed to provide more detailed information on checkoffs. The steps involved in creating a checkoff are described as well as the design issues involved in developing a checkoff. At the close of Part 3 a reader should have enough information to begin the development of a checkoff.

The appendices provide supplementary information. Appendices A and B and C each present a brief case study of a checkoff. Two are American checkoffs: the soybean checkoff and the carambola checkoff. The first checkoff is nationwide in scope and generates millions of dollars a year while the second operates only in one or two Florida counties and generates several thousand dollars per year. In spite of differences in scale, both are successful and both are fully developed checkoffs. The final checkoff is an African checkoff sponsored by a hotel chain — the Sheraton “Going Green” Program. This checkoff lacks many of the participatory elements of the American checkoffs but compensates for this shortcoming by making it extremely easy for contributors to obtain refunds at the point of payment.

2. The Case for Checkoffs

WHAT ARE CHECKOFFS?

Checkoffs are a response of producers, industries and consumers to limited public budgets. These are a self-imposed tax on a group of producers or consumers which are used to fund programs in agriculture or resource management. These programs are normally implemented by the public sector but at levels deemed insufficient by many of their clients.

Funds generated by checkoffs do not go directly into government treasuries. Instead they are administered by a nongovernmental organization that represents contributors and provides grants and contracts to public agencies. These funds support programs of mutual interest to the contributors and to the public agencies themselves. Checkoff agencies may also contract with private companies and other non-profit organizations if they are able to provide better services than the public.

HOW DO CHECKOFFS WORK?

Checkoffs are self-imposed taxes that are paid by specific categories of consumers or producers to fund public programs of interest to them. Examples of such groups would be cotton producers, food processors or hotel owners who tax themselves to share the cost of public sector research that could benefit them. Every checkoff is organized to address the unique needs of those groups that pay them so no two are alike. Although every checkoff is organized differently, they have four common characteristics.

- They are initiated as the result of a majority vote of a group of producers or consumers. These groups vote to tax themselves to fund programs of common interest. Typically checkoffs fund programs in research, conservation, extension and market development.
- Checkoff fees are collected by private businesses and deposited in a trust fund. The trust fund is operated by a non-governmental organization managed by the elected representatives of the group that pays the checkoff.
- The checkoff organization is a grant making institution and does not have a large staff and does not carry out research and development programs itself. This organization issues grants and contracts to public and private organizations to further the objectives of contributors.
- Contributors retain the right to vote to disband the checkoff organization and to cancel the checkoff. This can be done at any time by a referendum of contributors. The checkoff organization itself may also retain the right to cancel a checkoff.

These characteristics ensure that those who receive checkoff funds remain highly accountable to those who pay them.

WHAT ARE THE ADVANTAGES OF CHECKOFFS?

Checkoffs provide advantages to producers and consumers that other forms of non-traditional funding do not while at the same time enhancing the performance of public agencies.

Advantages to contributors

All checkoffs are the result of a group of producers which are dissatisfied with the level or kind of service provided to them by public agencies. Checkoff funds are used to improve the level and/or quality of services provided to private groups by government organizations or they may be used to contract for services that government agencies are unable to provide. Thus the primary advantage of a checkoff to contributors is the provision of needed research, development, or conservation services.

Checkoffs not only enhance the performance of public agencies by providing funding to supplement public budgets but they enhance the efficiency of these agencies. Checkoff funds are used to finance specific projects and related overhead expenses rather than the recurrent operation and maintenance costs of an agency. For this reason contributors receive a higher return on their investment than they receive from voluntary contributions or from levies which go to the general support of a public agency. Because checkoff funds are not used for general operations of an agency and because checkoff funds can be withdrawn at any time by the checkoff organization, checkoffs supplement public funding and are not a replacement for it. When agencies are funded by levies or endowments there is a temptation for financially strapped governments to use alternative funding sources as an excuse to reduce public funding of research and conservation. This is less likely to happen with checkoffs than with many other innovative forms of finance.

Checkoffs are also extremely flexible instruments. Their size and duration can be adjusted to meet the needs of an industry or to fund a very specific project such as the purchase of a piece of land or equipment. The amount and duration of a checkoff can always be adjusted to fit the perceived needs of contributors. Since funds are not locked up in expensive, specialized personnel, checkoff funds can be used to address unexpected problems and crises or to provide seed money to innovative projects. Checkoff organizations are small with very little administrative overhead, so their management is simple and straight forward. These organizations are simple enough that oversight by contributors is easy to carry out. Because these organizations are small and contract out research and development programs, they can respond quickly to new problems because new challenges do not require reorganization or important personnel changes. The issuance of grants and contracts permits checkoff organization "to go where the talent is" rather than to create expertise in-house.

A final advantage of checkoffs is that they create incentives for government personnel to be more client oriented. This form of finance provides an incentive for involving the private sector in strategic planning and priority setting. Such involvement makes it more likely that public organizations will have a positive impact on their intended clientele.

Advantages of checkoffs to public agencies

Public agencies like checkoffs because they provide increased amounts of financing and public support for their programs. In recent years, the operating budgets of African agricultural and resource management agencies have declined on a per employee basis. As a result, the performance of trained staff is inhibited by the lack of operating dollars. The principal advantage of a checkoff to a public agency is that it provides critically needed operating dollars. A properly organized checkoff should yield more funds for research and conservation than funding by the public or funding through levies will provide. Checkoffs enhance the ability of public agencies to carry out their missions by permitting them to fully utilize existing human resources and facilities.

If properly implemented, checkoffs can enhance the ability of public agencies to attract additional public funds. The higher level of government investment in an agency, the higher the return will be for checkoff dollars which are designed to complement and to supplement public spending. Checkoff organizations become strong allies in an agency effort to obtain additional public funding. They have the ability to lobby decision-makers in ways that public servants do not. In addition, because they invest in an agency their opinions about the value of an agency's programs are usually seen as more credible and less self-serving than testimonials by agency personnel.

Finally, checkoffs contribute significantly to the ability of agencies to set priorities and to serve the public. They are an important way of increasing the contact of agency personnel with clientele groups and provide a financial incentive to those who are most responsive to the needs of clients.

Advantages for Society

Checkoffs are one way of assuring optimal levels of investment in agricultural research, agricultural development, resource management, and conservation. Each of these activities yields public and private benefits and so optimal funding requires private and public finance. Agricultural research yields public benefits by ensuring an adequate food supply and preventing runaway food prices caused by periodic shortages. Agricultural research can also increase the income and well-being of farmers.

As a result, public investments in agricultural research give priority to basic food crops and to technologies which enhance yields and overall production. There tends to be an under investment of public funds in so called “minor crops” and in techniques that reduce production costs. Private companies do not invest in such management research either because they are interested in patentable innovations or in the sale of inputs. So if the public is the sole investor in agricultural research, investments will be less than needed by farmers and if farmers are the sole investors in research they will not give sufficient attention to food security. On the other hand, if private companies are the sole research agencies they will neglect research on management technologies that might benefit both farmers and consumers. Optimal levels of agricultural research require private and public investments. A checkoff is a way to achieve this end in a way that favors cooperation between public agencies and private groups facilitating a coordination of efforts.

Another advantage of checkoffs is that they are a source of funding that is sustainable and responsive to societal needs. Currently much of the operating funds for African agricultural and resource management institutions comes from foreign donors. These funds are unlikely to increase in the future and may decrease. Donors are well suited for financing infrastructure and training but are not always capable of supporting on-going research and conservation programs. Donor projects tend to be of relatively short duration (3-5 years) and reflect the priorities of donors more than national needs. Successful research and conservation programs normally take 7-15 years to carry out and it is difficult to secure donor commitment for such periods of time. Donors assume that programs are begun with their funding will be completed with local funds, but currently there is a shortage of such funds. Checkoffs are one way of obtaining long term funds needed to supplement and complement donor funding.

Checkoffs also have the added benefit of growth of democracy and a civic culture in Africa. Checkoff organizations are mechanisms by which people can participate in shaping their industry or improving the quality of their lives. Through participation in checkoff organizations, people acquire the skills and the confidence needed to participate in democratic institutions. Checkoffs also increase linkages between government agencies and their clientele in ways that increase the responsiveness of government to public concerns.

HOW DO CHECKOFFS DIFFER FROM LEVIES AND CESSES?

At first glance, a checkoff seems like just another form of compulsory levies and assessments that have been used for decades to finance research, extension and promotion for export crops. Successful examples of the use of these levies are the Coffee and Tea Research Foundations in Kenya, the Malian Textile Company (cotton) or CMDT, and the Columbian coffee research program are examples of successful programs that are financed by levies (Opile, 1993; Roseboom and Pardey, 1993; Falconi and Elliot, 1994; Serafini and Sy, 1992). Checkoffs are quite distinct from levies however in terms of their objectives and organization.

Levies and cesses are attractive funding mechanisms in cases where the major beneficiaries of research and extension activities are the producers who pay the levy. This is not usually the case with agricultural research, extension, or resource conservation. The major beneficiaries of these activities are the consuming public and future generations. Levies and cesses are only feasible when their public benefits are increased producer and national income. This is the case of export crops which are not consumed locally. While levies and cesses can only be successfully implemented to support a few export commodities, checkoffs can be successfully created to support domestically consumed commodities and conservation activities.

Checkoffs can not only be used to achieve a broader range of objectives than levies and cesses but they also are organized in a different manner. Major differences between the organization of checkoffs and that of levies and cesses are outlined below:

- Levies and taxes derive their mandates from government legislation while checkoffs are mandated by a referendum of those who pay them.
- Governments decide whether to continue or discontinue levies, those who pay checkoffs retain the right to abolish the checkoff at any moment if they are not satisfied with the actions of the checkoff organization.
- The revenue from levies and taxes either goes directly or indirectly through the national treasury to fund the operation of public and/or parastatal institutions that carry out programs of research, extension and development. Checkoff funds go to a non-governmental organization that issues contracts and grants to public, private and parastatal organizations to carry out specified projects.
- Checkoffs are designed to improve the performance of the public sector or to fully employ underutilized human resources while levies are usually used to support the basic operation of public and parastatal organizations.
- Checkoffs are used to support specific projects while levies and cesses usually support programs (including the salary of permanent staff). As a consequence, the minimum level of funds needed for a successful checkoff is typically far less than is required for a successful levy.
- In the case of levies, representatives of the public/government and the institutions receiving funds have the largest voice in determining priorities while in the case of checkoffs the contributors have the largest voice.

Checkoffs possess the advantage of providing funding for programs that produce public and private benefits while levies function best when most benefits accrue to those who pay them. Checkoffs also have the advantage of increasing the accountability public agencies, making them more client oriented and at the same time requiring fewer government resources than levies or cesses.

WHAT ARE THE DIFFERENCES BETWEEN CHECKOFFS AND VOLUNTARY CONTRIBUTIONS?

A number of research and environmental protection groups depend heavily on the voluntary contributions of individuals and corporations. Fund raising based on individual philanthropy can be an important source of funding for many organizations including large international organizations such as the World Wildlife Fund. No one is obligated to donate to a charity and there is no need for donors to be involved in the management of the funds generated through the solicitation of gifts. Checkoffs are mandatory and the organizations that receive checkoff funds represent contributors. Checkoff fees are collected from all beneficiaries regardless of their support for checkoff objectives. Persons who do not support a checkoff may have the option of requesting a refund, but they are obligated to pay the checkoff at point of assessment. Checkoffs generate more funds than voluntary contributions and have lower administrative costs. They also include participatory mechanisms that are lacking in philanthropic organizations.

WHY CHECKOFFS? A BRIEF HISTORY

Checkoffs developed in America in response to many of the same problem that African institutions face today — inadequate levels of public funding. Checkoffs have been an extremely popular way of providing additional funding to support agricultural producers in the U.S. There are 14 national commodity checkoffs in the United States and in addition 43 states have checkoff programs. The state of California has 25 separate checkoffs. The first national checkoff was the cotton checkoff created in 1966 but state level checkoffs have existed for more than 50 years.

As in Africa, public support for agricultural research declined as national priorities have changed. Two of the most notable changes in the U.S. have been the declining importance of agricultural production as a factor in rural development (90% of rural residents are not farmers) and a shift of federal funding away from traditional areas of research towards basic research and environmental protection. As a result, the amount of funds devoted directly to solving farmer problems has dropped significantly. Declines in funding resulted in an increasing percentage of budgets going to salaries and the maintenance of on-going programs. As a consequence facilities and human resources may not be efficiently utilized and there has been a lack of resources to meet farmer needs.

In some areas the private sector has increased its investment in research as a result of declining public investment in the area, but most areas of research are not attractive to private firms. Agronomic and management research which cannot yield profitable patents has been neglected and there has been less attention given to so-called "minor crops" as a result of funding shortages. Research problems of local and regional concern were also neglected because of the limited size of these markets and there was little interest in developing alternative uses for crops.

The ability of public institutions to devote funds to addressing new problems was compromised. Researchers and extension personnel could not respond rapidly to new challenges because existing funds were committed to the maintenance of existing programs. Following are four examples of situations where public agencies were unable to respond to new problems without checkoffs:

- When world demand for cotton declined because of the popularity of synthetics, public institutions lacked the resources to do research on new product development or to promote the use of cotton.
- When a new pest, the soybean cyst nematode, reached Southern Missouri there were not enough resources to adequately meet this new challenge without severely compromising other priority research programs.
- The tropical fruit industry boomed in South Florida in the 1980s, but an already strapped research and extension system could not provide research, education and promotion services to this new multi-million dollar industry without destroying the programs that served even larger commodity producers.
- As U.S. consumers became more concerned with fat in their diets, public research institutions were not able to devote sufficient resources to finding ways the livestock and meat industry could satisfactorily lower the fat in meat products delivered to the consumer.

Since the benefits of such research accrue to both producers and the general public, neither the government nor producers will provide adequate funding for such efforts alone. Checkoffs were designed to combat funding shortages of public agencies in a way that increased the responsiveness of these agencies to the needs of farmers. Checkoff funds could also be used to contract private firms who had expertise or manpower that was lacking in the public sector. Checkoff systems are designed to enhance existing programs rather than to create new programs of conservation and research. Since checkoffs often fund cooperative programs between producer groups and public institutions, they also have the effect of creating an advocacy group for public institutions.

The major advantage of checkoffs for those who pay them is that they get better service that is targeted to their priority needs. Checkoff funds make public and private institutions more responsive to the needs of the contributors and lead to the funding of programs that are of higher priority to farmers than to governments. For example, while both governments and farmers are interested in increasing yields and reducing production costs, farmers place a higher weight on the latter than do ministries of agriculture. This is because the first priority of ministries is usually food security and/or export volume while income is the first priority of farmers.

The major advantages of checkoffs for public research and extension agencies have been increased funding, increased flexibility, and increased public support. Checkoffs have permitted a more efficient use of existing human resources by giving some scientists the funds they need to work effectively. More importantly, however, checkoff funds give agencies the increased flexibility to deal with unforseen opportunities and problems. Finally, because checkoff organizations work closely with public agencies, they become strong public advocates of increased budgets for the agencies with whom they work.

WHAT CAN CHECKOFFS FINANCE?

Checkoffs can finance the promotion of agricultural commodities, local industries and agricultural research. They can also be used to support the protection and rehabilitation of natural and cultural resources that are important to the tourist industry. Checkoffs can also be used for consumer education to help them use products better or more safely. In Africa promising areas for checkoffs are funding of agricultural research and extension through producer checkoffs and the funding of conservation activities through checkoffs on the tourism and timber industries. Checkoff funds cannot be used to meet general operating and overhead costs of an agency. Examples of activities that could be financed by a checkoff are as follows:

- development of specific disease resistant varieties of a commercial crop
- purchase of land to protect endangered species
- purchase of a boat or vehicle so that government officials might be able to travel to rehabilitate and protect a fragile reef or ecosystem
- provision of a vehicle/parts or fuel so that researchers might conduct a variety of chemical trials in a variety of ecological zones, instead of a single station
- purchase of laboratory equipment needed to conduct diagnoses of plant or animal diseases
- development of management techniques that reduce the amount of purchased inputs marketing research
- short term training of government or NGO employees on the latest techniques and methods in their fields
- research on ways to improve the grading and preservation of crops
- financing of infrastructure in national parks and nature reserves
- development of new uses for commodities
- purchase of land and/or easements to protect endangered habitats or pay for afforestation projects
- finance research on fisheries habitat
- finance special intensive agricultural extension or disease prevention programs
- provision of seed money to help new industries become established

WHY USE A CHECKOFF MECHANISM?

The main reason for checkoffs is to increase investment in agricultural research and environmental protection. Although the public sector invests heavily in these areas, the funding available for research and conservation projects is limited and has not been growing as quickly as the need for them. After staff salaries are paid by most research and conservation agencies, there is often an acute shortage of funds needed to carry out their missions. As a consequence, available funds are allotted to a few national priorities and the research and conservation needs of specific localities and minor industries are not adequately addressed. In most cases there are sufficient human resources to respond to these needs but inadequate operating funds. Checkoffs can solve this problem.

Checkoffs are efficient ways to address pressing local problems. They can operate at virtually any scale and level. In the United States, for example, there are successful national checkoffs that generate millions of dollars like the checkoff on milk which is levied on more than 170,000 farmers. There are also successful checkoffs that operate in a small portion of a single state, generate $30,000 a year, and involve less than a hundred producers such as the carambola checkoff.

Checkoffs are the best way to assure optimal levels of investment in research and conservation. Because these activities generate both public and private benefits, under investment will occur if they are financed solely by the private or public sector (de Gorter and Zilberman, 1990).

Checkoffs are a means for industry groups to support the government in areas of mutual interest and for industry and government to form partnerships in areas where both perceive there to be a lack of investment. Checkoffs permit an increase of funding to government agencies in a time of fiscal crisis and at the same time allow industry groups to pursue strategies that will enhance their competitiveness and viability — strategies that individual firms cannot pursue on their own.

Checkoffs are a unique innovation because they increase the accountability of public agencies and encourage the development of democratic institutions. Since checkoff organizations fund activities and do not carry them out, they have the flexibility needed to respond to priority problems of industries and localities in a way that is impossible for national and international agencies. For these reasons, producers are more likely to support a checkoff at a higher level than they would a tax.

WHO ARE THE PARTICIPANTS IN A CHECKOFF?

The principal participants in a checkoff are the institutions and organizations that are concerned with agricultural research and environmental conservation. This includes those that will eventually receive checkoff funds and the group of producers, consumers, or businesses that will pay the checkoff. Those who pay the fees will need to be represented by a non-governmental organization. In cases where enabling legislation is needed to permit the collection of checkoffs or where public institutions will have to be reorganized to be able to receive grants and to enter into contracts, national political leaders will need to participate in the process. National governments may also be involved in order to assure that funds are properly collected and disbursed.

WHEN ARE CHECKOFFS A VIABLE FUNDING OPTION?

Checkoffs are not a substitute for public funding of research and environmental protection. Checkoff programs are designed to enhance and to complement existing programs. If properly designed they should in fact increase public budgetary support for the agencies receiving checkoff funds. Since checkoffs are only a part of a sustainable funding package for an agency, it is important to understand under what circumstances checkoffs have potential for increasing funding for research and environmental protection in Africa. Checkoffs are a viable funding source if the following questions can be answered affirmatively.

Question 1: Are there potential private sector beneficiaries? Are there commodity producers or other private sector groups which feel that they would benefit from increased public investment in agricultural research or in environmental protection? These groups must have the capacity to organize and support a checkoff organization. If all the benefits from a research or conservation program go to the general public and none can be captured by contributors, a checkoff is not a viable alternative.

Question 2: Are there realizable benefits in the short term? Are there projects that can be identified which will yield research or conservation results in two to three years. These results must be visible to contributors. While checkoff funds may be used to fund longer term projects as well, there must be evidence that contributors are getting value for their investment. A checkoff is viable even if it generates a small amount of money annually if it only produces tangible results.

Question 3: Does the market structure permit a checkoff? Checkoffs on subsistence crops, or on products or services that are marketed locally through traditional channels are unlikely to be effective. Checkoffs work best where organized formal markets exist so that collection costs are low and that evasion and free riding are detectable and are minimized. This requires that some sectors of the industry are organized enough so that collections are simple to make and easily monitored. Industries where there are a relatively small number of firms like tourist or timber industry are well suited for checkoffs. Checkoffs are also well suited for commodities where there are large numbers of producers but relatively small numbers of commodity purchasers, transporters, processors and/or exporters — as long as these groups have effective record keeping systems.

Question 4: Are projects viable and acceptable for both the contributors and recipients of checkoff funds? Checkoffs assume that cooperative projects between the checkoff organization and research/conservation agencies are possible. Once the potential benefits of a checkoff are identified, care must be taken to identify projects from this list that are consistent with the public missions of research and conservation agencies. As stated earlier, there is really not a minimum amount of money needed to be generated by a checkoff. A checkoff that generates $15,000-$20,000 a year may have a major impact on a problem.

Question 5: Will governments support a checkoff? Although it is possible to create a checkoff without government intervention, all checkoffs require some government support. Even when governments have no involvement in the creation and operation of checkoffs, they must permit their agencies to enter into agreements and contracts with checkoff organizations. Most checkoffs require government support for their creation and operation. This involvement may simply be to recognize the legality of a checkoff organization, or it may be considerably more. In any case, a government must be willing to accept the existence of an autonomous group that collects a form of taxes and has some influence on the operation of public agencies.

3. Guide to Organizing a Checkoff

Checkoffs should be viewed as a component of an institution's sustainable funding plan. The decision to promote a checkoff should be the result of the process which develops a long term funding plan for an agency. This plan should be developed as a result of a series of meetings and conferences which involve key institutions that are concerned with an agency's operation and output. These institutions may represent the private sector, nongovernmental organizations, communities, and government. It is through meetings with these groups that the potential contributions to sustaining funding for an organization can be assessed. The previous section of this handbook was designed to provide background information on checkoffs that can be used in the discussions involved in creating a sustainable funding work plan for an organization.

Part 3 of this handbook offers a more detailed look at checkoffs and the issues that must be addressed in the process of creating them. It is intended for those who have answered the questions outlined in the previous section and have concluded that one or more checkoffs should be part of an organization's funding plan. The first section of this chapter outlines the process of organizing a checkoff program and the issues that may be raised during the process. The next section discusses the resources needed to organize a checkoff and the potential contributions of public institutions, nongovernmental organizations, the private sector, national governments, and international donors. The final and third section discusses some of the alternative organizational arrangements that have been used in checkoffs to address the concerns of governments, recipient agencies, and checkoff contributors.

WHAT STEPS NEED TO BE TAKEN TO ORGANIZE A CHECKOFF?

The following steps should be taken to organize a checkoff:

1) Organize a working group/steering committee.
2) Conduct a feasibility study and decide about implementation based on its results.
3) Identify or create an organization to promote and implement a checkoff.
4) Evaluate alternative organizational forms for a checkoff, choose the most appropriate one, and formally propose a checkoff.
5) Obtain necessary legal or legislative authority.
6) Implement of the checkoff subject to the approval of contributors.

Organizing a Working Group

If preliminary discussions about sustainable funding have identified checkoffs as a viable funding option, a formal working group must be organized to develop and promote a specific checkoff. If multiple checkoffs are proposed, a separate working group should be created for each one proposed. This committee should be made up of key leaders of the groups that will be impacted by the creation of a checkoff. These groups will have been identified during the meetings that developed an institution's sustainable funding plan. Typically this group would include leaders of the group which will pay the checkoff, the agencies or nongovernmental organizations that will utilize checkoff funds, the groups that will collect checkoff fees and the communities that will be affected by checkoff expenditures. Typically the lead institution at this stage will be the institution which is seeking sustainable funding, but an organization representing checkoff contributors can also act as a lead institution.

Once a working group is convened, the operating procedures of the working group must be formalized. The parties involved in the working group must agree on decision making procedures and governance and there must be agreement as to the responsibilities of all parties. At this stage it is important to secure promises to provide the necessary human and financial resources to carry out feasibility studies and to organize a checkoff.

Successful working groups must be participatory. The success of a checkoff requires the identification of a common set of interests between a research or environmental protection agency, a private sector group, and the public interest. The private sector will require assurances that their money will be used wisely. The recipient agencies will want assurances that the funds will not subvert their mission and will be used in ways that are technically and scientifically sound. The public will need assurances that the money spent will not benefit a special interest at the expense of the general public. The exact concerns expressed will vary according to the kind of checkoff considered and the particular history. In some cases there will be few differences between the goals of the groups involved in planning a checkoff and in other cases there may be a relatively narrow area of agreement. Consequently, no two checkoffs will ever be alike.

Conducting a Feasibility Study

The first task of the steering committee is to conduct a needs assessment and a feasibility study. The group must identify pressing research and/or conservation needs that are not being adequately addressed because of inadequate financing. A list of such needs should be an outcome of the process that leads to an institution's sustainable funding work plan. The working group must be able to prioritize needs by identifying a subset of needs that are important for the institutions needing funding and the people who will pay a checkoff. If checkoff contributors and recipients cannot develop a common set of priorities, a checkoff is not a viable funding arrangement and there is no need to conduct a feasibility study.

Once a set of priorities has been established, the greatest challenge during this phase of checkoff development is to identify specific projects or activities that address identified needs. In general, contributors want to invest their funds in specific projects with tangible outputs so that the utilization of funds can be easily monitored. Research and conservation agencies on the other hand are not accustomed to budgeting by activity and are more interested in receiving funds for recurrent non-salary costs to support broadly defined programs. Finding a mutually acceptable set of objectives usually requires both parties to change the way they think about research and budgeting. The producer groups need to gain a greater appreciation of the processes of research and conservation and the public agencies must learn to become more product or output oriented. Once the working group agrees on a set of activities that a checkoff could underwrite, it must examine the financial and technical feasibility of a checkoff.

Financial Feasibility

Once a set of priority activities has been identified the financial feasibility of a checkoff can be rigorously examined. A financial feasibility study must examine both the cost of achieving checkoff objectives and the amount of funds that contributors are willing to assess themselves.

The financial analysis requires a continuation of the needs assessment process. Specific projects and activities to be funded by the checkoff must be identified with their costs. These projects must be of relatively short duration (1-3 years) and must have observable outcomes. They must be technically sound and address issues that are clearly important to those who will pay the checkoffs. Identification of possible projects is a necessary part of a financial feasibility. In addition the cost of the administration of the checkoff itself must be identified. Administrative costs include the costs of elections and checkoff collection as well as the costs of overseeing the use of funds generated by a checkoff.

After the costs of achieving checkoff objectives are determined, these must be compared to the revenues that a checkoff can generate. There may be instances when the cost of needed projects exceeds the income generating capacity of a checkoff or when only long term projects can be identified. If the cost of all priority projects exceeds the resources to be generated by a checkoff, priorities must either be redefined or the idea of a checkoff should be abandoned. If most priority projects require investments over very long ten-n periods of time, the working group should probably consider the creation of an endowment either as an alternative to a checkoff or as a complement to it. Contributors are usually unwilling to devote significant amounts of checkoff funds to long term projects until the checkoff has operated successfully for several years. They must be convinced of the value of their investment and develop trust in recipient agencies before they will make long term commitments.

Financial feasibility studies must also assess the willingness of contributors to pay a checkoff. The survival of a checkoff is always dependent on the vote of contributors; so it is vital to know how much they are willing to pay for research and environmental conservation. Willingness to pay is not a constant. Willingness to pay depends upon the importance of projects that can be funded by a checkoff to potential contributors and upon the level of control that contributors have over the utilization of checkoff funds. In general, the more potential contributors value checkoff activities and the more control they have over the allocation of funds, the more they are willing to pay.

Organizational Feasibility

Although a checkoff must be financially sound, an analysis of the organizational feasibility of a checkoff is critical for success. Checkoffs can only be sustainable funding mechanisms if a successful partnership is formed between those who pay checkoff funds and those who receive them. Such a feasibility study must identify the requirements for a successful partnership. The organization and operation of a checkoff must be participatory and must address the concerns of all of those involved in the checkoff. The concerns of three groups are particularly crucial. These groups are the contributors, the recipient institutions, and the public as represented by governments. Concerns vary by checkoff and by location, but the following are concerns that are frequently raised during the formation of checkoffs.

Examples of typical concerns expressed by participants are listed below. If these concerns are held by significant numbers of participants, a checkoff must be organized in such a way as to address them.

Industry Concerns

Members of checkoff paying groups are usually concerned about returns on investment, fairness, and accountability. Some of these concerns will be voiced within checkoff working groups themselves. Others must be addressed during the checkoff referendum. Issues of particular importance include:

- A concern about exploitation — contributors usually pay substantial taxes. They fear that institutions will substitute checkoff funds for public funds that are currently used to support checkoff objectives. Such substitutions would not increase the total funds devoted to the special needs of the checkoff groups and would therefore be unacceptable.
- Concern that money paid to the government "disappears" and cannot be accounted for later.
- A desire for flexibility — contributors do not want to be mandated to give a certain amount of money to an institution. They want the right to shift funds to whomever can use the funds most efficiently.
- Concern about the ability of employees of government agencies and non-governmental organizations to work efficiently.
- Fear that the checkoff money will be spent on research and conservation programs that are of little interest to checkoff contributors.
- The issue of justice — should persons who disagree with a checkoff be forced to pay for activities that they do not support. On the other hand, if payment is voluntary, is it fair for all to benefit from the payments of a few?
- Concerns about equity — contributors are not al-

ways a homogeneous group. If priorities for use of checkoff funds disproportionally benefit a specific group of producers or a specific region, should those who derive less benefits have to pay?

- Concerns about representation — will contributors in all regions and smaller contributors have a voice in checkoff decisions?
- Concern about the value of research or environmental protection.
- Fear that recipient organizations will use checkoff funds for maintenance of facilities, staff salaries and prerequisites for checkoff officials and employees.
- Fear that the leaders of the organizations will not be accountable to those who pay checkoffs.
- Concern about the misuse of funds by the checkoff organization or the agencies receiving them.
- Concern that the funds generated by the checkoff will eventually be diverted to programs not desired by the industry.
- Concern about the duration of a checkoff. Contributors may see some short term projects that require their funding but are unsure that checkoff funds are needed once these projects are completed.
- Concern about free riding. If checkoffs are voluntary, people who ask for refunds may enjoy the benefits of a checkoff without paying for them.
- Concern about use of research results. Publication of research may lead to the transfer of technology to competing nations or may generate patents and royalties for the researchers at the expense of the contributors.
- Concern that the cost of achieving desirable goals will exceed the ability of members to pay.

<u>Concerns of Institutions Which Would Receive Checkoff Funds</u>

The public and nongovernmental institutions which would use checkoffs as a component of their budgets have specific mandates and missions. Their concerns about checkoffs relate to the influences of a checkoff on their goals and mission. They focus largely on issues of technical feasibility and control. Among these concerns are:

- Concern with the impact of checkoff funds on agency priorities. The interests of checkoff groups are narrower than the agencies that are involved in environmental protection and agricultural research. The availability of funds from checkoffs could provide an incentive for researchers to change their research agendas.
- Concern about the producer group's ability to identify and support good, scientifically sound projects.
- Concern about continued public funding. Will public funding of research and environmental protection decline because checkoff funds are merely substituted for public funds?
- Concern about satisfying the checkoff organization. Good science takes time and checkoff organizations are interested in projects of relatively short duration. Will checkoffs lead to an emphasis on short term research to the neglect of important long term projects?
- Concern about morale. Checkoff funds could create two groups of scientists - those who have access to checkoff funds and those who do not. This division could exacerbate the conflicts already inherent within an organization.

<u>Government Concerns</u>

Government concerns are related to issues of authority and the public interest. Checkoff organizations have been granted a limited ability to tax and their expenditures can influence the actions of public agencies. Examples of government concerns include:

- Concern about delegating government functions (taxation, research, extension) to a nongovernmental agency.
- Concern about alteration of public priorities. Will a significant infusion of checkoff funds alter the publicly mandated mission of the recipient institution or reduce the agency's responsiveness to public concerns?

- Concern about the misuse of funds on the part of the checkoff organization or nongovernmental recipients of funds.
- Concern about lack of a voice in decisions about the use of checkoff funds.
- Fear that checkoff funds might be used to finance a political agenda or to lobby.
- Fear that the checkoff organization might stop working in the interest of its members or stop working in the public interest.

ORGANIZING AND PROPOSING A CHECKOFF

If checkoffs remain an attractive funding alternative after completion of organization all and financial feasibility studies, the next step is to develop a proposal for implementing a checkoff. This will include the identification and/or creation of the organization or organizations that will eventually promote, organize, and manage the checkoff. Rules of governance must be created as well as mechanisms to assure that checkoff funds are collected and managed in ways that support the objectives of their contributors.

The Checkoff Organization

If checkoffs are to be an effective funding mechanism, there must be a nongovernmental organization to manage and disburse funds. This organization must represent the group that pays the checkoff and be accountable to them. While an informal organization can explore the feasibility of a checkoff, a legally recognized organization must manage the funds. The nature of this organization will vary according to the structure of the industry, the nature of the checkoff considered, and the role of government.

In some cases, a checkoff organization can be created with very little government involvement. It can organize as a non-profit organization, trust, or association under existing legislation. However in most cases, the organization of a checkoff will require special legislation or government approval before a checkoff organization can obtain the right to require the payment of checkoff funds. Most nations do not have laws that permit groups of producers or consumers to create organizations to tax themselves without some kind of government mandate.

Defining Checkoff Collection Procedures

The feasibility studies carried out by the organizing group should identify a level of checkoff that is acceptable to producers and at the same time produces sufficient revenues to contribute to agricultural research or environmental conservation. Checkoffs are collected at the time a product or service is sold. In most cases, levies will be in the range of 0.5-5.0% of the sales price of the product or service. The checkoff level must be chosen in a way that both optimizes the benefits derived from the checkoff and the support of contributors.

Procedures for efficiently collecting checkoff fees and providing for refunds (if mandated) must be developed. The size and complexity of this task will depend upon the organization of markets. Checkoffs are cost effective only in organized sectors of the economy where good record keeping is the norm and sales go through formal marketing channels. Checkoffs are particularly easy to implement in agriculture sectors such as sugar, edible oils, tobacco, cocoa, coffee, rubber, and tea where products are either sold to large scale processors or through international commodity markets which are characterized by a small number of firms. Tourist services and the timber and mining industries are also organized in similar fashion. In sectors where some aspect of production or distribution of goods or service is dominated by a few modern firms, these firms can collect checkoff assessments at little or no cost to the checkoff organization. In fact, if these firms support the objectives of the checkoff organization, they may collect checkoff fees at no cost to the checkoff organization.

There may be little need for direct government involvement in the collection of checkoff fees in highly organized industries dominated by a few firms. Those who collect fees are highly visible and easily monitored. There are other industries which may be characterized by good record keeping systems and formal market mechanisms that are highly decentralized such as cash grain production in the U.S., the horticultural export industries in many African nations, and the tourist industry in some countries. In these cases, the large number of collection points make it unlikely that everyone in the industry will voluntarily collect checkoffs and it will be difficult to monitor every firm.

In decentralized markets, the power of government must be used to assure that checkoff funds are collected. Some organization must be in a position to audit those firms that collect fees and ensure that fees are collected from everyone and given to the checkoff organization. Such checkoffs usually require the force of legislation to provide them with a mandate. Sometimes a government may delegate the authority to enforce compliance with the checkoff to a checkoff organization. More typically, governments will oversee the collection of funds and then transfer them directly to the checkoff organization. In this case, checkoff funds are <u>never</u> placed in the national treasury but are deposited in a separate trust fund that can only be used for purposes stated in a checkoff's mandate.

It is important to reiterate that checkoffs are not a viable sustainable funding option if the cost of collection is high, if it is easy to avoid payment, or if most of the checkoff funds are eventually refunded. Cost of collection and ease of non-payment are influenced by the structure of the market. The fewer collection points, the lower collection costs are and the easier it is to detect noncompliance. Collection costs and non-compliance are particularly high in industries where a large number of producers are not commercial producers or where a significant portion of production is consumed and marketed locally. These problems can be reduced if the firms involved at the collection points are involved in the operation of the checkoff. However, it is clear that the more centralized marketing or processing is, the easier it is to administer a checkoff.

Accountability

People are willing to contribute checkoff funds to public agencies because they benefit from the improved performance of these agencies. The principal advantage to contributors of checkoffs over levies or taxes is that the former increase the accountability of public agencies to the groups represented by the checkoff organization. The better the accountability, the more people are willing to pay. For this reason, creating mechanisms to assure accountability is critical for the formation of a viable checkoff organization. Most of the objections or concerns expressed by those opposing the creation of a checkoff are related to the issue of accountability.

Accountability must be assured on at least two levels. The first level involves the accountability that the checkoff organization and those agencies receiving checkoff funds have to contributors. Those who are required to pay checkoffs must be assured that the money they contribute is being used to support activities desired by the contributors. They want assurance the checkoff monies are not being used for the purposes outlined in the mission of the checkoff organization. They do not want checkoff funds to be used to support general agency operations or to create comfortable lifestyles for checkoff managers.

In many countries previous experience with parastatal organizations and government agencies has created suspicions and uncertainties about whether the checkoff organization can be expected to use funds generated efficiently or whether its leadership will be truly representative of the interests of contributors.

To aggravate these problems, agricultural research and environmental protection agencies may lack the financial management and reporting systems needed for grant supported activities. Often these agencies have previously been financed by national governments or by foreign donors. Neither of these sources may require budgeting and funding autonomy at the level of specific projects. Funds from these sources may first go into the national treasury and then be placed in the general operating budget of an agency or unit. In these cases, cumbersome procedures may be in effect that prevent either the timely expenditure of funds or the accurate reporting of expenditures. Such not only reduce the effective use of checkoff funds but may also make it difficult to determine how funds were actually spent. Checkoff funds cannot be substituted for public funds.

A second level of accountability concerns the accountability of the recipients of checkoff funds and the checkoff organizations themselves to the public interest. Checkoff funds are typically used to finance collaborative efforts between public institutions and the contributors of checkoff funds. Typically, checkoff funds pay for projects using public facilities and public employees. Checkoff organizations often require special legislation and government support as well. It is therefore crucial that checkoff funds are used to support programs that are in the public interest and do not distort the public mission of the institutions that they fund. In some cases, the public interest can only be served if the public is represented on the board of the checkoff organization itself.

Accountability at all of the above levels must be assured to facilitate passage of the referendum that mandates a checkoff. The first attempts to pass a checkoff referendum often fail because of concerns about accountability on the part of contributors.

Organizing Referenda

The long term survival of a checkoff depends on the grassroots support of contributors. Without such support a checkoff will either be voted out of existence or will find its mission subverted. Referendums are the principal means for checkoffs to maintain this support and for maintaining communication among contributors, recipients, and the checkoff organizations. Elections and the possibility of referendums ensure that contributors will be constantly informed about the activities of the checkoff and the role that they play in it.

A precondition for any referendum is a list of eligible voters. This is quite simple to obtain for highly organized sectors where lists of producers, firms, and consumers are maintained. However, more decentralized sectors of an economy may not have lists. In this case, participants in the checkoff organizing group must agree to a voter registration process and obtain the funds needed to finance voter registration. In the U.S. the government and/or industry associations have assumed responsibility for this activity. It is important to emphasize that a mechanism must be found to register a majority of potential contributors to vote. If a large percentage of contributors are not registered to vote, the checkoff may not be well supported and the checkoff organization may not be able to represent the interests of contributors.

In North America, checkoff referendums cannot be called unless a significant proportion of contributors (10% or more) sign a petition calling for a referendum. While the exact number of required petitioners may vary, the petition requirement assures that a significant number of contributors are kept informed about the activities of the working group as it develops plans for the checkoff organization.

Checkoff contributors should also retain the right to petition for a referendum to cancel the collection of checkoff funds or to alter a checkoff's objectives or the level of assessments. Generally the same percentage of contributors needed to petition for the creation of a checkoff are needed to petition for a vote on its future directions. Many checkoffs also have a "sunset provision". That is to say the referendum authorizing the checkoff, limits its existence to a fixed number of years (usually 5 or 10 years). At that time a new referendum must be passed to continue the existence of the checkoff.

Once the checkoff has been approved, the list of eligible voters can be used for the selection of representatives to the checkoff organization itself. Petition and referendum processes assure that checkoff organization remain accountable to their contributors.

What Resources Are Needed to Start a Checkoff?

African institutions possess all of the financial and human resources needed to create checkoffs. Checkoff development requires considerable time commitments from relatively large numbers of people, but the financial resources required are quite modest compared to other types of sustainable funding mechanisms. Nonetheless, the organization of a checkoff requires that one or more of the institutions involved in the working group must provide staff to support coordination and planning. Some funds are also needed to support a limited number of activities. These funds must either be provided by working group members in cash or in kind or the group must seek outside funding. Financial resources are needed to fund the following activities:

- Provision of basic staff support to the checkoff organization. Such support includes maintaining a secretariat to assist in coordination and communication.
- For legal services. These are needed to create a checkoff organization that can legally enter into contracts and issue grants to public and private institutions.
- Support of lobbying activities. In some cases there may be a need to work with government to help modify existing legislation to permit the existence of a checkoff.
- Organization of referendums. Eligible voters will have to be identified, a petition campaign organized and finally, a campaign in support of the checkoff idea must be carried out.
- Conduct of referendums. There are costs involved in carrying out referendums, assuring referendum integrity and counting votes.
- Support of interim staff. Once a checkoff is approved by a vote of contributors, the checkoff organization must be put into place, a plan for the collection and utilization of funds. This organization must be created and staffed <u>before</u> the collection of checkoff funds begins.
- Creation of financial oversight and management systems for the collection and utilization of funds.

Those participating in the working group may provide many of the resources outlined above "in kind". For example, they may supplement staff with legal or financial expertise temporarily to the checkoff organization or lend vehicles and office space to the organization. Thus the total amount of cash needed to organize a checkoff may not be large.

What Roles Should National Governments Play?

Governments play no fixed role in checkoffs. Their involvement will vary considerably depending upon the size and complexity of the proposed checkoff, the structure of the industry involved in the checkoff and the political importance of the mission of the checkoff. At a minimum, governments must provide the legal framework to support the existence of checkoff organizations. Regardless of the form that a checkoff takes, checkoff organizations must have the ability to legally collect and disburse funds.

There is also a need for some organization to monitor the operation of checkoffs to ensure that the interests of contributors are being met. In most cases, the government is the best qualified institution to provide this important service.

Because checkoffs often fund public institutions, governments may wish to be active partners in a checkoff. They may assume responsibility for organizing referendums and the enforcement of checkoff regulations. They may also want to nominate persons with technical expertise to act as advisors to the checkoff organization. The exact role of governments should be established early in the process of checkoff development. It is perfectly appropriate for governments to be involved in checkoffs as long as primary control over the checkoff remains in the hands of contributors.

What Roles Can Donors Play?

The organization of checkoffs involves grassroots organizing and the participation of local institutions. Checkoffs require that members of the private sector and the public institutions which carry out environmental protection and agricultural research develop a common set of interests and form a working partnership. As a consequence, this process must be led by representatives of local institutions or the process will not be sustainable.

Donors cannot take the lead in the formation of checkoffs, but they can accelerate the process of checkoff development. They can do this by providing incentives to those supporting checkoffs and by providing modest levels of funding in support of a limited number of activities. Examples of such activities are listed below:

<u>Education</u>. Donors can organize workshops and training sessions for institutions interested in sustainable funding and support the development of funding work plans. They can also support educational conferences for groups specifically interested in checkoff organizations. Such activities can facilitate the development of a checkoff and at the same time educate those who must

eventually vote to create a checkoff. Donors can also support networks of institutions interested in checkoff funding and can fund study trips, conferences and electronic bulletin boards.

Consultations. There are numerous instances when checkoff organizers may need consultations with local legal, financial, and technical experts. At the very least, legal assistance will be needed to provide for elections and to create a legal entity that can receive and disburse funds. Accounting systems must also be created as well as by-laws for the checkoff organization. Donor funds could be used to pay for some of these services.

Elections. Donors can play an important role in helping set up the election process for approval of checkoffs. They can finance the registration of voters, the actual mechanics of managing the election and even some of the campaign costs. However, checkoffs should generate enough funds to pay for future elections so donors must be sure to create election procedures that local institutions can manage with the funds available to them.

Operating funds. Donors should not provide money for the operation of checkoffs except in the form of endowments. Heavy donor involvement will undermine the level of ownership in the checkoff that contributors must have if this funding source is to be sustained.

Start up funds. Once a checkoff is approved by a vote of contributors, the checkoff organization must be put in place so that funds can be collected and properly spent. Typically, the checkoff organization will have to begin operation 6-12 months before checkoff funds begin flowing. Donors could provide financial support during this crucial period as long as the level of support were at a level that could be maintained with checkoff funds alone.

Financial oversight. In some cases donors may need to finance auditing functions for the first years of a checkoff in order to institutionalize systems for government agencies, the checkoff organization itself and for the recipients of checkoff funds.

ALTERNATIVE FORMS OF CHECKOFF ORGANIZATION

Checkoffs are participatory institutions. Their nature and their organization are reflections of the needs and concerns of the groups that they serve. Even within the U.S. no two checkoffs are alike because the stakeholders are different in every case. Consequently, there is no model checkoff organization that can be presented in a handbook and copied by groups wishing to organize a checkoff. Checkoffs are the result of a process that builds consensus among a coalition of institutions and groups. Nonetheless, the experience of existing checkoffs is valuable. The following are examples of institutional solutions to specific problems faced by checkoff organizers.

What Mechanisms Combat the Lack of Confidence in the Ability of Checkoff Funds to Be Used Wisely by Public Agencies?

1) Criteria for granting funds are on a project basis so that it is clear to contributors what additional benefits they are receiving.
2) Grants may fund direct research expenses and may limit amount of money used for investigator salaries and for overhead.
3) Grants and contracts are given for specific needs/items so that it is possible to verify expenditures.
4) Where public agencies lack the accounting systems needed to satisfy contributors, the checkoff organization may provide resources “in kind” rather than in cash. That is to say that the checkoff organization may employ temporary laborers or technicians and purchase supplies and equipment for a project rather than to give the grantees cash.
5) Checkoff organizations are free to fund whomever they choose, be it government agencies, non-governmental organizations, universities or private firms on a project basis. Requests for proposals are issued and the best proposals are funded irrespective of source. Non-performance by a grantee will deprive them of future funding.

Must Checkoffs Have a Provision for Refunds?

The provision of refunds facilitates the passage of a checkoff referendum because it permits those who oppose the checkoff concept to opt out. The organizational structure of a checkoff permitting refunds can be simpler than one that does not, because representation is not a big issue. Most checkoffs start by permitting refunds. Once the checkoff has proved itself, contributors may support a referendum to restrict refunds.

What Are the Advantages and Disadvantages of Refunding Checkoff Payments to Individual Contributors?

Advantage 1: Refund of checkoffs increases support for the checkoff referendum from producers because persons are not compelled to pay for something that they do not support.

Advantage 2: Refunds increase the accountability of a checkoff organization because they in effect amount to an annual referendum on the checkoff.

Advantage 3: Purely voluntary checkoffs can be set up more easily and require less government involvement in their operations than mandatory ones.

Disadvantage 1: If benefits of a checkoff accrue to the whole industry, a person who asks for a refund can benefit without paying. This is not a problem in instances where contributors have special access to information or services produced with checkoff funds. Where this is a problem, steps must be taken to reduce free riding. **Possible Solution:** Contributors may be asked to vote to change the terms of the checkoff. For example, refunds may become more difficult to obtain or subject to limitations. At some point they may even be eliminated entirely.

Disadvantage 2: There may be an equity problem as larger producers and firms may have more incentives to obtain refunds than smaller ones even though they may receive relatively more benefits from the checkoff. **Possible Solution:** Limiting refunds may also partially solve this problem.

Disadvantage 3: Refunds may lead to fluctuations in funds available to support checkoff objectives. There is no good organizational solution to this problem except the effective management of checkoff funds.

How Can the Governments Be Assured That the Checkoff Is Operated in the Interests of the Public?

In the U.S. the Federal and state governments may be given the power to cancel a checkoff in the event that a checkoff no longer serves the public interest. However, governments can only abolish checkoffs. They cannot take over the collection of funds and/or the management of the checkoff.

Governments may periodically audit the financial records of the checkoff organization and/or the organizations receiving the funds.

How Can Contributors Be Assured That the Checkoff Organization Will Continue to Be Responsive to Their Needs over Time?

- The ability to obtain refunds provides assurances to contributors that they can control the organization.
- A provision that a new referendum can be called at anytime on the petition of contributors (10% of eligible contributors).
- Sunset provision which calls for the cancellation of the checkoff after a period of years unless renewed by referendum of contributors. Typically the checkoff must be renewed through a referendum every 5-10 years.
- Existence of a representative body to allocate checkoff funds. If the contributors are not a homogeneous group and are divided along regional or some other lines, steps can be taken to assure the representation of major groupings in all checkoff decisions.
- Term limitations for checkoff leaders and representatives of contributors.
- Limitations on the compensation to be received by checkoff leaders included in the checkoff charter.
- Rules that set a limit to the percentage of checkoff funds that can be devoted to salaries and administration of the checkoff organization itself.
- Requirement that changes in the by-laws or mis-

sion of a checkoff must be approved by legislation or a vote of contributors.

How Can Freeriding Be Minimized and the Contributors Be Assured That They Are Major Beneficiaries of Activities Funded?

- Refunds can be limited.
- In the case of patentable innovations, there can be an agreement as to the sharing of royalties.
- In the case of research, results may be presented at events for contributors only or there may be restrictions on the publication of results. For example, results may not be published without consultation of the checkoff organization for a set period of time (2 years).

What Can Be Done to Ensure That the Checkoff Organization Will Pursue the Interests of the Industry as a Whole and Not Those of an Influential Segment of the Industry?

- If the industry is not homogeneous, the board of the checkoff organization must reflect the regional or organizational diversity of the industry. In some cases, smaller enterprises, processors or specific regions must be assured representation on a checkoff board.
- If processors or handlers play a major role in the collection of fees, they may need representation on the checkoff board.
- The checkoff organization should be legally separate from government organizations, producer groups, and cooperatives even though there may be overlaps between the leadership of these groups.
- Candidates for a checkoffs board should be nominated through a petition process rather than be nominated by existing boards of directors.
- Candidates for the board should be required to disclose any potential conflict of interest.
- Board members should be reimbursed for expenses incurred in conducting board business so that all income levels of producers may be able to serve.
- There should be strict term limits for board membership as well as officer positions.

What Can Be Done to Assure Institutions Receiving Checkoff Funds That Checkoff Funds Will Be Used in Technically Sound Ways and Will Not Be Used to Undermine the Goals of the Institution?

- Members of major recipient organizations may be “ex-officio” members of the board of the checkoff organization.
- A two-tiered review system can be used to assure the technical quality of projects funded by checkoff funds. The checkoff organization may state its priorities and issue a request for short preproposals from qualified institutions. The checkoff can review these documents and prioritize them. Those receiving highest priority would then be asked to submit full proposals. Full proposals would be reviewed by a group that includes persons with relevant scientific and technical expertise.
- Efforts must be taken to continually educate the checkoff organization and checkoff contributors on both the value of checkoff supported activities and the “art of the possible”.

This section has outlined the steps to be taken to create a successful checkoff organization. It attempts to outline the kinds of issues that can come up in the process of organizing a checkoff. The most important thing to remember is that not all checkoffs are the same. The organization of a checkoff depends upon scale of the organization, its objectives and the amount of trust that exists among participants. Checkoffs involving relatively small numbers of people who interact with each other frequently and which pay for highly visible projects can be quite simple. However, checkoffs involving large numbers of people scattered over considerable distances and which pay for a wide variety of projects will require considerable planning and organization.

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Appendix A: The Carambola Research Committee

by Robin Albee

This paper presents a case study of the efforts of carambola producers and the University of Florida to jointly finance and carry out research on carambola production using funds generated by the carambola producers themselves. It illustrates how significant amounts of research can be generated from modest funds generated by a small industry. The case of carambola production in Florida provides an illustration of how grower financed research might be feasible in developing countries. For the purposes of this study the researcher interviewed tropical fruit growers, county agents, extensionists and researchers from the University of Florida, and one tropical fruit handler.

BACKGROUND

In the last twenty years, the agricultural area around Homestead, Florida has seen a dramatic increase in the production of "minor" tropical fruits such as mango, carambola, lychee, and longans. Unlike major tropical fruits (lime and avocado) which have federal and state marketing and research orders, minor fruits growers had remained relatively unorganized. In 1988, a collaboration between minor fruit growers (mostly carambola), the South Dade County Extension Service and the Tropical Research and Education Center (TREAC) resulted in the creation of The Tropical Fruit Growers of South Florida, Inc. The Tropical Research and Education Center is a University of Florida research station emphasizing research, teaching, and extension programs focusing on the tropical and subtropical fruits and vegetable crops of southern Florida.

The Tropical Fruit Growers of South Florida (TFGSF) was organized as a growers association to give fruit growers a voice and representation in South Florida. The TFGSF articles of incorporation state that the purpose of the organization is to "promote the commercial development of tropical and subtropical fruit crops in Southern Florida through scientific research, education and publication, to engage in any other legal activities which its members deem consistent with these objectives and goals, and to engage in all activities permitted by and not inconsistent with the Florida-Not-for-Profit Corporation Act."

The rare tropical fruit market grew rapidly throughout the 1980's. This growth was one factor in prompting growers to organize into a growers association like the TFGSF. Recognizing the commercial potential presented by the demand for rare tropical fruits from Immigrant populations in Miami, individuals began planting commercial fruit groves in 1982. The need for research was a concern for carambola growers from the outset. As the industry grew, growers became increasingly frustrated with what they perceived as an information gap regarding basic horticultural and production issues concerning rare tropical fruits. One grower expressing the frustration felt by the tropical fruits industry in the mid 1980s said, "Florida row crop agriculture was in a big decline, yet carambola was growing like crazy. But at this time no state money was received (for promotion and/or research) and no university research was being conducted on carambola. We were getting nothing." Despite high demand and good fruit prices throughout the 1980's, carambola growers realized that oversupply would be a problem as production increased. Thus promotion, together with research became the two biggest needs and concerns voiced by the fledgling minor fruits industry.

NEEDS ASSESSMENT

Dr. Jonathan Crane, a South Dade County extension agent at the time was instrumental in the initial TFGSF and CRC organizing process. When Crane arrived as an extension agent in 1987 he visited and spoke with many growers who expressed their increasing need for minor tropical fruits research and promotion. Crane was also influenced by long time observers of South Florida horticulture who strongly recommended the creation of some type of "growers association" in order to give voice to the needs of the burgeoning minor fruits industry of the area. Early in 1988 Crane began meeting weekly with a "core" of seven to nine growers, mostly carambola producers, with the goal of putting together some type of structure. Within months the Tropical Fruit Growers of South Florida, Inc. was formed. The initial board of directors was composed of seven directors who in turn elected five officers from among their ranks to manage the affairs of the corporation. The organization is financially supported through annual membership dues ($50 per year). The TFGSF does not have any significant overhead expenses since it has no permanent office. Most meetings are held free of charge at conference rooms at the TREAC research facility. The TFGSF mail box is also located at TREAC.

By 1988, carambola, the most promising of the minor fruits in the Homestead area, had grown to over 300 acres and the need for improved production and horticultural methods was becoming increasingly apparent. In particular, growers wanted to know which cultivars grew best in the marine subtropical climate of south Dade county and what the nutritional needs of these trees were. In September of 1988, six months after start up of TFGSF, the Carambola Research Committee (CRC) was formed under the aegis of the TFGSF. Following is a brief history of the steps that led to formation of the CRC.

FINANCIAL ASSESSMENT

After arriving at a grower consensus on the need for research, the first task of Crane and the carambola growers was to decide whether or not they could generate the critical mass of money needed to fund the aforementioned research. This needs assessment task was carried out by Crane who wrote and distributed a detailed survey to all known Carambola growers, which he identified by compiling a master list given to him by different tropical fruit packinghouse. The results of this survey together with conservative estimates of grower participation (70-75%) were presented in a public presentation that was attended by nearly all of the carambola growers in the region. Following are results of the survey which estimated the potential revenues from a checkoff given existing numbers of carambola trees.

Table A: Basic Carambola Industry Statistics

Description	Total Number	Average
Carambola Acreage	339	5.0
Carambola Trees	41,400	618
Carambola Trees Per Acre		123

Carambola growers were also presented with a variety of different ways in which they could assess themselves. The three major funding mechanisms considered were assessments based on a specified amount per lb. of packed fruit, an assessment per tree, or a given percentage of gross profit. After discussion, members of the CRC chose a dollar amount per pound basis whereby they agreed to assess themselves one cent for every packed pound of carambola fruit that they sold (in 1994 the CRC board voted unanimously to increase the assessment rate to 1.5 cents. A simple majority of votes were needed for passage). These assessments in turn were to be collected by the handlers of fruit packinghouses. This range of money raised through assessment, based upon the survey results, was calculated

Table B: Money Generated from 70% Packout

Estimated Research Money
Generated from Percentage Assessment
of Growers Profit Through Packinghouse

Fruit Price per Pound	Gross Profit	1.0%	1.5%	2.0%	2.5%
0.25	259,114	2,591	3,887	5,182	6,478
0.35	362,759	3,628	5,441	7,225	9,069
0.45	466,405	4,664	6,996	9,328	11,660
0.55	570,050	5,701	8,551	11,401	14,251
0.65	673,696	6,737	10,105	13,474	16,842
0.75	777,341	7,773	11,660	15,547	19,434
0.85	880,987	8,810	13,215	17,620	22,616
0.95	984,632	9,846	14,769	19,693	24,616
1.00	1,036,455	10,365	15,547	20,729	25,911

Figures are in US $.

to be enough to begin contracting research projects through TREAC. In addition to a unanimous consensus on this agreement, growers also decided to raise some money for immediate research instead of waiting until sometime the next year when the trees would begin bearing fruit. Towards this end they assessed themselves a one time only charge of 50 cents per tree which raised $12,000.

It is important to note that extension researchers did preliminary groundwork to ensure that the options presented were feasible. Crane says that he and another South Dade County extension agent, Carlos Balurdi, theorized that using packinghouses as the points of collection and TREAC as the means of research would be the best option and the one hopefully chosen by the rest of the CRC members. Before this meeting to discuss survey results and options, Crane and Balurdi spoke with different packing houses and received their assurance of support regarding assessment collection. In particular, they received a verbal commitment from J.R. Brooks and Sons, the largest fruit and vegetable packing facility in south Florida. In the months before this meeting Crane also spoke with the director of TREAC about doing contract research with the CRC. The director was receptive and agreed to be on the board of the CRC. The Director was not actively involved in CRC proceedings, his membership being largely symbolic. The Director also made a possible research agreement more attractive by agreeing to not charge any research station overhead on contracts with the CRC.

The next issue for the carambola group was to determine what kind of institution would work best to house collected checkoff money. After some discussion the group decided to organize itself as a commodity research subcommittee under the already existing Tropical Fruit Growers of South Florida, Inc. Most CRC members agree that they would have organized for the purpose of funding research even if an organization like the TFGSF wouldn't have existed. Although the group felt that they had the independence and the assurance of success needed to incorporate themselves as a non profit organization, in the end, they chose to ally themselves with the TFGSF. This was done primarily for financial, legal, and political reasons. Financially, this arrangement enabled the CRC to reduce costs by using Tropical Fruit's free meeting room space at TREAC, its treasurer and bank accounts. In a legal context, the Tropical Fruit Grower's represented an easy already existing incorporated, non-profit financial house in which to hold any money raised by the CRC for research. Political reasons, however, were the major impetus prompting the carambola growers to organize themselves under the Tropical Fruits umbrella. Dr. Crane shares the sentiments of many growers when he says, "If you want to have a voice in agriculture in south Florida you have to have the numbers." With the TFGSF, sufficient numbers and consequent voice are generated by organizing all of the minor fruits (carambola, lychee, and longans primarily) into one organization. The Tropical Fruit Grower's function as an advocacy organization for the growers was realized in 1994 when the organization helped secure a $300,000 direct grant from the state of Florida for research and promotion regarding minor fruits. Prior to this year, the Tropical Fruit Growers had tried and failed for 5 years to secure this type of annual state grant. Tropical Fruit growers seem to agree that it took this long for the members to develop the necessary political and administrative acumen to successfully lobby state legislators for funding.

Crane and the carambola growers are the primary architects of the Tropical Fruit Growers of South Florida, the CRC, and the "vision" that unites the two. This vision, a word used repeatedly by this core group, was of an umbrella organization like the Tropical Fruit Growers of South Florida having an influential voice by representing different kinds of minor tropical fruit growers. Then, as explained in the Tropical Fruit Growers by-laws, research and/or promotion could be conducted by sub-committees organized under the auspices of this parent organization. With encouragement from Crane and influential growers this is the route that the CRC eventually followed. "Too much individualism" is one the major reasons that Crane cites in explaining the failure of many agriculture coops and farmers groups in Dade County over the last 40 years. Crane attributes part of this ineffectiveness and failure of other grower associations in the area to the steadfast refusal of these groups in the past to ally itself with other small fruit growers associations. Thus the CRC as a subcommittee of the Tropical Fruit Growers was envisioned as a collaborative effort that effectively allows members, in the words of one grower, to "wear two different hats." One "hat" is that of a commodity organization strengthened by united members for the kind of lobbying and overall representation deemed necessary by the competitive political and economic climate of south Florida, while the other is that of an apolitical organization dedicated to successfully funding research for its members. The Carambola Research Committee, as explained in the TFGSF by-laws, is an autonomous organization:

> Each Fruit Commodity Committee's members may, by a simple majority vote of it's members, assess themselves in a manner, an amount and for a purpose which they alone determine. The Fruit Commodity Committee shall have absolute control over the funds which it assesses and shall maintain a separate bank account for that purpose. Only members of the Fruit Commodity Committee who are approved by the Committee shall be authorized to draw and sign checks of the Committee's bank account. The By-Laws and Articles of Incorporation of the Tropical Fruit Growers of South Florida shall not be amended or altered in any manner to impinge upon the Fruit Commodity Committee's absolute control of it's own funds.

The current CRC Board of Directors, consisting of fourteen members, is comprised of ten growers, the director of TREAC, a south Dade county extension agent, and one TREAC researcher/extensionist. This board of directors combined with the group's current consensus on research needs enables members to conduct tasks such as prioritizing research studies and deciding which projects to fund relatively straightforward. Quite often members sit around a table and arrive at a unanimous consensus on what to fund. At other times a vote is required.

Following is an example of a CRC research contracting procedure:

1) CRC wants to fund $30,000 research project.
2) A contract between the Tropical Fruit Grower's of South Florida/Carambola Research Committee and the Institute of Food and Agricultural Services is signed detailing financial arrangements and tasks to be accomplished.

3) The state of Florida actually pays the $30,000 cost of the project in bulk sum payments. The CRC through it's parent organization, the Tropical Fruit Growers, then repays the $30,000 to the state of Florida in regular installments. For example, the CRC growers might agree to pay $5,000 every 6 months for a duration of 3 years. CRC members agree that if the CRC did not start a research project until the entire cost of the project was raised it would take a long time to get any research done. The University of Florida's Institute of Food and Agricultural Sciences (IFUS), according to Crane, understands that cash flow is a problem with many grower organizations and has thus established a mechanism using discretionary accounts to loan money on the understanding that it will be paid back.

The initial 50 cents/tree assessment together with the regular 1.0 cent/lb. assessment generated enough money to start a 4.5 acre research grove at TREAC. CRC generated money paid for the land preparation, irrigation development, total cost of planting, maintenance, and wind screens. TREAC pays for faculty and staff salaries, buildings, maintenance, and overhead. In addition, the CRC currently pays for a full time technician for data collection and research assistance in the test grove.

TREAC and the CRC have determined that areas of research needing more intensive control would be administered on the experimental groves at the TREAC site, while studies requiring less control or needing larger trees would be done off-site with the cooperation of growers in their groves. Since 1990 the CRC has entered into three major research contracts with TREAC totaling $235,076.

Research was financed in the following areas.

1) 1990 — Applied methods and rates of Nitrogen and Iron.
   - — Tree size control and training.
   - — Total cost $92,221.
2) 1993 — Manipulation of flowering and harvesting.
   - — Pytheum root rot control.
   - — Total cost $102,855.
3) 1994 — Manipulation of flowering and harvesting.
   - — Sooty blotch study.
   - — Total cost $40,000.

Freerider Issue

The freerider issue, i.e., those who hope to capture some of the benefits of grower financed research but do not want to participate through the giving of money or time, is dealt with in two different ways. A major freerider related dilemma developed early between TREAC, a public institution with a mandate to publish research findings and the CRC a private organization not receptive to the idea of providing research results to growers that did not contribute money to the CRC. The growers were especially concerned that "off-shore" growers from Thailand and Taiwan, their biggest overseas competitors, would benefit from the research. The compromise reached by TREAC and the growers was that research results would be published two years after the completion of the research project. During the two year period before the research is actually published TREAC informs CRC growers of the results. TREAC researchers say that they are able to justify this because "officially" TREAC is only obligated to discuss research in progress with the research donor. Another way in which TREAC and CRC collaborate in order to thwart possible free riders is through the CRC sponsored field days. Ordinarily, TREAC sponsors field days during which research results can be explained and disseminated to growers. However, the first field days that TREAC held regarding carambola were attended by a number of non CRC growers. Since TREAC was not able to legally exclude members of the general public from official functions like field days it was decided the CRC would sponsor subsequent carambola field days. For these CRC sponsored field days the guest list consists exclusively of CRC members.

The freerider issue is also important in the discussion of promotion and advertising. Promotion with carambola, a fruit that most consumers aren't familiar with, was an issue from the beginning.

Promotion, however, presented a much thornier problem to carambola growers than did simple research. Promotional activities were not originally funded because the largest packer and many growers did not want to participate in a promotion campaign of any kind. The only grower and packinghouse consensus at that time was for more research thus the CRC was created.

SUCCESS

The CRC is perceived as being a very proactive and successful organization by its members and many others familiar with the tropical fruits industry. They stand in marked contrast to other grower groups such as the Mango Forum which are widely perceived as being ineffective. According to Reed Olszinsky, director of Tropical Grove Services for packing house J.R. Brooks, "The CRC is as focused as the Mango Forum is unfocused." The vision and organization of the CRC are among the reasons cited by Mango growers on why they decided to join the Tropical Fruits Growers as a commodity sub-committee. In addition, lychee and longans growers are currently organizing a Tropical Fruit Growers/Lychee and Longans Research Committee based on the CRC model.

Another reason for CRC's success is the quality of its research and its responsiveness to grower's needs. Growers have adapted most CRC sponsored TREAC research very quickly. For example, John Crane reports that after TREAC communicated results of tree training research showing that topped trees produced significantly more fruit, "within days" most of the carambola growers in the area had topped their trees.

H.H. Bryan, the acting TREAC director is impressed with the way in which the CRC has funded research at TREAC and maintains that it is a precedent for commodities wanting research done at the center. In the last couple of years the tomato industry has tried unsuccessfully to convince IFUS to set up a tomato breeding program at TREAC. The tomato industry has failed, in part, because of research administrators like Bryan who opposed the plan maintaining that money for the tomato research would have come from University of Florida — IFUS and the TREAC operating budget; and unlike CRC funded research, the funds for the tomato breeding project would have necessarily meant less money for other TREAC projects. Bryan concludes that grower funded research is important because it gets farmers and growers into the habit of contributing "and that's important nowadays when research budgets are lean and possibly getting leaner."

Many said that the success of the individuals involved created the proper atmosphere of success for the CRC as a group. Of the 65 growers of the CRC, fifteen or so are very active in running the CRC. Of the fifteen active growers there are five who have been especially instrumental in developing the CRC. This core group, referred to by some as the "big five" comprise the most influential carambola growers. These growers who donated generous amounts of their own time in getting the CRC up and running are self described as having attributes such as wisdom, willpower, and dedication. The growers are successful and do indeed seem to exhibit many of these characteristics. A profile of the "big five" growers (and indicator of group dynamics) would also include the following descriptors:

- Most of the growers are relatively young — mid 40's.
- Carambola groves are large, at least 5-10 acres.
- Most growers have at least a bachelors degree. A number have advanced degrees.
- Most growers are in the upper/middle class income bracket.
- Fruit growing is not their primary source of income. Many growers have kept their professional jobs and view their carambola groves as additional income and an occupation they may be able to enter full-time if the market becomes lucrative enough. There are only a few growers that rely exclusively on fruit sales for their main source of income. These are larger growers for whom fruit growing has become a second or

third profession. Most growers do not have any formal agriculture education or background.

The communication and rapport that characterize the group dynamics within the CRC also apply to the committee's relations with outside institutions. This can be most clearly seen in the close working relationship that the CRC has developed with the county extension agents and TREAC researchers, and most of the regional packinghouse. Together these institutions have been able to fund and administer research and creatively deal with problem issues such as freeriders (as they relate to research — not promotion).

ISSUES/LESSONS LEARNED

In looking at the history of the CRC organization, it is important to note that after producers and extension officials decided to pursue some form of producer funded carambola research, the actual formation of the CRC was not the first step in the sequence. Rather, the first activity was to calculate total carambola production and then determine what kind of assessment would be palatable to the growers. Next, they agreed upon a feasible assessment method that worked by effectively incorporating handlers into the process. Lastly, they concluded that the amount of money raised in the aforementioned process would be sufficient to enter into a contract with TREAC for various research projects. It is only at this point that the growers formally organized themselves into a formal grower funded research organization. As this process demonstrates a number of different kinds of assessments were consciously performed by the original creators of the CRC. The more important of these actions or assessments may be viewed in the following manner:

1) <u>Needs assessment and goal identification</u>. Carambola growers together with extension agent identify their need for a certain kind of research.

2) <u>Financial assessment</u>. Extension agent takes initiative in calculating revenue potential of a checkoff assessment to meet group research goals. Growers agree with extension's findings on financial viability of checkoff idea and choose one of several different feasible funding schemes.

3) <u>Institutional assessment</u>. Marketing and industry structure are determined to be adequate to support checkoff operation with carambolas. Handlers, in particular, are brought into the checkoff loop by their agreement to act as the crucial bottleneck at which point assessments are collected from growers. Another institutional assessment is the identification of a subcommittee of the Tropical Fruit Growers of South Florida, Inc. as the best organizational format for growers to manage their checkoff funds.

Although the CRC was formed for the sole purpose of funding applied research for the benefit of its members it would be misleading in a way to think of the CRC as a single task organization. Rather, it is part of the Tropical Fruit Growers which is multi-task in orientation. In addition to the political and advocacy roles played by the Tropical Fruit Growers, the by-laws of the organization state quite clearly that commodity committees (such as the CRC) exist for "the purpose of supporting and furthering research, education, marketing and development of the fruit." The CRC as a research organization is currently successful and gives the Tropical Fruit Growers much of the support and visibility that it now enjoys, many members expect promotion and marketing to be the overriding issues of the future. As carambola production increases and supply begins to outweigh demand, the need for promotion increases. The consensus within the carambola industry is that some type of promotion checkoff is needed and that it will be expensive, with an assessment rate (for promotion alone) of at least 8 cents per pound of packed fruit. Most everyone agrees that the carambola industry won't get involved with this "second generation" problem of promotion until everyone is involved. Growers, explain that the freerider issue involved with the existing voluntary checkoff for research was decided upon because of the overwhelming agreement on the need for research and the relatively small amount of the assessment. These same people point out that most growers are simply not willing to pay a large cess unless everyone pays it. Acknowledging these significant freerider problems, the carambola industry has begun to move towards creating a state of Florida marketing order. In addition to providing a state mandate for the collection of checkoff money from all growers, the state order would also create quality and standards for all fruit sold.

This case study also illustrates the possible effectiveness of a small organization. The bureaucracy, accountability, and lack of oversight that often plague larger organizations are not issues within the CRC where a common goal is shared and everyone knows one another. The face to face interaction so important in establishing rapport and understanding among checkoff participants was clearly the rule and not the exception within the CRC; thus the answer to the question "what's in it for me?" was easily answered by almost all CRC growers. The CRC is the very model of simplicity when compared to state mandates that deal with much larger economies and complex legal and administrative issues. The fact that the minor tropical fruits industry is relatively small and geographically centralized would seem to enable the industry to have good results without any type of state intervention. The CRC is unique in this regard. Most checkoff organizations must rely on state intervention and regulation to minimize problems such as the freerider issue.

The agreement reached by the CRC and the University of Florida regarding public dissemination of grower funded research findings (delayed publication and privately held field days) represents an issue often raised by privately funded public research. While the suppression of research findings runs counter to the researcher ethic of scientific exchange and adaption, it does present a valid issue and in the CRC case a compromise that can meet the needs of both parties.

The decision not to charge the CRC for overhead costs was based on the precedent within the University of Florida system of not charging overhead to most farmer and grower commodity associations. There are signs, in Florida and across the nation as a whole, that the ability of checkoff groups to secure a favorable arrangement through the waiving of University overhead rates may be problematic in the future. In 1993 the University of Florida attempted to implement a new policy wherein all organizations, including commodity producer organizations would begin to pay overhead costs. A concerted campaign of Florida commodity organizations, led by the powerful citrus industry, succeeded in persuading the university to withdraw its proposal to standardize its overhead policy to all groups.

IMPLICATIONS FOR FUNDING IN DEVELOPING WORLD

The ultimate utility of a relatively small checkoff program on the order of the CRC has both advantages and disadvantages. One constraint of a smaller CRC type organization is that the critical mass of funding necessary for research may be dependent upon rather profitable horticultural crops and not, as is the case with many national checkoffs, a large number of growers. But with gross annual profits between $7,000 and $10,000/acre every year, one can see how even a modest assessment of 1.5 cent/lb. could generate significant money for research, even with a relatively small assessed area of 350 acres of carambola trees. Since 1990 the CRC has entered into three major research contracts with TREAC totaling $235,076. It may also be possible to reach this necessary level of funding in a small grower financed research organization where the necessary money came from lower profit/unit crops and higher acreages, although this situation creates a dynamic different from the one examined in this case study. The question then for Africa might be: Where are the commercial farmers or growers that could approximate the scale and dynamics of the carambola growers in Florida? The actual amount of money needed to create a viable critical mass for research would certainly be different in Africa, however, its possible that this amount would be less than is needed by an organization like the CRC in

America. This would especially be true if there were an existing African research facility with salaried researchers but no money to conduct actual research.

The combined services of the South Dade county extension service and the University of Florida (TREAC) were instrumental in helping carambola growers create the CRC as a viable mechanism for funding research. In an era when state intervention in matters such as these can be more problematic than beneficial, the CRC example demonstrates the potential of a state to facilitate and foster a beneficial institution building process. In fact, it is doubtful that the carambola growers, despite their many attributes, could have organized as successfully as they have without proactive assistance from the state. In some African contexts, this kind of state assistance and connection may reassure governments and government institutions that may be wary of successful and completely independent farmer organizations.

A key task to creating any checkoff organization in developing countries would be to differentiate it from the notion of marketing boards. Marketing boards, especially those found in Africa, have an unsavory often deserved reputation as organizations that have evolved into government or parastatal agencies designed to create tax revenue from producer's crops. Checkoff organizations differ from marketing boards in many important respects. Most notably, checkoffs are voluntary, that is, producers vote whether or not to assess themselves in order to fund their stated goals of research and/or promotion. Some checkoff programs are also voluntary in that they allow producers to request assessment refunds. The main advantage of checkoffs, and the most important difference between these organizations and marketing boards, is active involvement and direct participation of producers in the day to day operation and governance of the organization.

As illustrated in the CRC case, producers themselves determine research needs and priorities, and then identify and fund (producer) problem driven research. In larger checkoff organizations a board of directors comprised of producers and elected by fellow producers make these same decisions while overseeing a professional staff that takes care of day to day operations.

Appendix B: The Missouri Soybean Merchandising Council

by Robin Albee and Jere L. Gilles

INTRODUCTION

The previous case of the Carambola Research Committee (CRC) is an example of a local checkoff involving a small number of producers, researchers, and processors who reside in a single county in Florida. It illustrates how a very small checkoff can have a tremendous impact on research and extension. Because all of the participants lived in the same area and were able to directly observe each others actions, the CRC was a very simple organization. Checkoffs, however, can be very small or very large. This is a description of the Missouri Soybean Merchandising Council (MSMC) a checkoff involving tens of thousands of farmers and hundreds of collection points.

PURPOSE OF THE MISSOURI SOYBEAN MERCHANDISING COUNCIL

MSMC is a commodity organization financed by commodity checkoffs paid for by all soybean producers in the state of Missouri. The Missouri soybean checkoff program and MSMC, the organization charged with its administration, was created in 1979 by passage of a statewide referendum of soybean growers in the state. In 1990, a mandatory national checkoff was implemented which superseded some aspects of the Missouri program. The primary purpose of the soybean checkoff organizations, both at the state and federal levels is commodity promotion and market development. However, the MSMC also places a strong emphasis on funding both basic and applied research.

EVOLUTION OF MSMC'S RESEARCH PROGRAM

Through its use of producer funded checkoff dollars the MSMC funds a non-public sector supported agricultural research program. Most of the research money, granted mostly to state University research institutions, is for basic and applied research. From 1980 to 1993, MSMC funded $4 million in research projects.

Governance of MSMC

MSMC is governed by a 13 member board headed by a chairman. The board is elected by producers from around the state on a volume per region basis. A small professional staff of 5 headed by a chief executive handles the day to day running of the operation.

Origin of MSMC's Research Program

Missouri soybean growers began giving, on a voluntary basis, a percentage of their profits to different organizations as far back as the late 1960's. In 1970, a referendum that would have established a ½ cent per bushel mandatory soybean checkoff program (with refunds if desired) was defeated by Missouri growers. In the early 1970's, Missouri soybean farmers began giving a voluntary assessment to the Missouri Seed Improvement Association, a Missouri state affiliated seed introduction and certification center for the purpose of developing better varieties of soybeans for growing conditions in Missouri.

In 1976, a referendum to establish a state wide soybean checkoff was again defeated, although by a smaller margin. From 1975 to 1978, the Missouri Seed Improvement Association together with the Missouri Soybean Association and the Missouri Farm Bureau initiated a voluntary checkoff program whereby the majority of the collected assessments was given to the American Soybean Development Foundation for the purposes of overseas market development and research. In 1979, on the third try, the Missouri soybean referendum establishing a half cent per bushel assessment passed. The enabling legislation for state checkoffs is contained in Missouri state statute 275.300.

While federal checkoff legislation is always commodity specific, the Missouri Statutes are broadly defined. State Statute 275.300. is a general statute authorizing any state checkoff organizations that has conducted legal producer referenda. The definition of a legal referendum is also specified in the Statute. The powers and the responsibilities of these checkoff organizations (termed “merchandising councils”) are outlined in broad manner, focusing mostly on their function of promotion and market expansion. While research, as such, is not identified in the section entitled “Powers and Purposes of Councils”, it is written into the statutory language dealing with establishment of petitions. The Statute states that petitions shall include: “A Statement of the general purposes of the commodity merchandising council program which many include research, education, grades and standards, merchandising, publicity, sales promotion and cooperation with other states, regional and national companies (MSS 273.320.).” One of the more substantive functions of the Commodity Merchandising Council Statute is that it authorizes the state of Missouri to collect mandatory assessments from all commercial growers (in this case, soybean farmers) within the state. In their successful checkoff referendum soybean farmers, in effect, voted to assess themselves according to the already existing Missouri statute 275.300.

Within Statute (275.360.), there is a refund provision whereby growers who did not want to contribute to the checkoff program can receive at least a partial refund on the amount they paid. In 1985, the MSMC became one of the few merchandising councils in the state able to pass an increase in their assessment rate. By majority vote, producers in the state agreed to increase the checkoff rate from ½ cent per bushel to 2 cents per bushel.

In 1990, a mandatory national checkoff was implemented by Congress. Under this arrangement, the United Soybean Board, the national checkoff organization, received 50% of checkoff proceeds while MSMC received the other 50% for use within the state. In February of 1994, soybean producers voted in a nationwide “delayed referendum” to continue the federal checkoff program.

While the primary reason for the creation of the MSMC was for promotion and market development, the checkoff provides substantial funding to the university to enhance and extend the research that it is doing on soybeans. Many farmers in the late sixties were frustrated by what they perceived as institutional inflexibility towards their needs and problems. One farmer recalling those days said the farmers’ attitudes at the time were that a lot of the university research was “too high fallutin” i.e. not applied enough. These original farmers’ concern as they are better understood in an examination of the research objectives of Missouri farmers and how they have changed over time.

Evolution of MSMC Research Objectives

In the late 1960’s and early 1970’s when MSMC was attempting to organize, Missouri farmers’ need for regional research was that primary impetus. “Regional research” in the context that it was used by Missouri Soybean Producers means any research which keeps Missouri competitive with other large, low cost soybean producing states such as Iowa and Illinois. Regional research at this time usually meant development of new, local soybeans varieties. In illustrating the need for varietal development several producers cited the example of the Hawkeye soybean. This bean, developed in and introduced from Iowa, was one of the staple varieties for Missouri soybean growers in the late sixties. The Hawkeye, developed for the heavier clay soils of the Midwest, did not always grow well in the upland type of sandy soils found in Missouri. Farmers, from that time, report growing problems with the Hawkeye beans, such as swelling and popping of the beans in the pod after heavy rain followed by high heat. During this time, it is generally acknowledged, that the soybean industry was not meeting the needs of the producers for new varieties. The primary reason for this was the fact that private companies were not able to capture the profits on new varieties since they were open pollinating plants.

This was in stark contrast to corn where the private sector could develop hybrid seeds that had to be purchased from seed companies, which in turn, ensured the corn industry of a stream of profits and produced a plethora of corn varieties for different parts of the nation. In 1974, the Plant Varieties Protection Act was passed by Congress. With profits for varietal development of open pollinating crops such as soybeans guaranteed, new high yielding, locally adaptable varieties became widely available. Now over 90% of the soybean varieties are products of private industry. It is important to note that during the late 1960's and early 1970's the University of Missouri also was not engaging in much applied soybean research and varietal development.

Lack of research in these areas was a result of many factors including the orientation of university staff towards basic research and their need to publish in academic journals. The research goal then, of the soybean checkoff organizers, was to use checkoff dollars in a self help manner and persuade the University to fund more varietal development. This happened with limited success. After the 1974 Plant Varieties Protection Act passed and regional soybean varieties became available, the research objectives of soybean farmers began to change. There was still concern for keeping Missouri competitive with other parts of the nation, but now funding of local disease research was considered more important. For example, checkoff funded research emphasizes disease research, rather than varietal improvement. MSMC leaders note that the University research system hasn't been very good at addressing soybean disease problems which are especially endemic to Missouri, such as Charcoal Rot and Sudden Death Syndrome. Here again, the idea is for producers to fund research that might not otherwise be done. Utilization research and the development of alternative uses for soybeans has also become more important. Although the MSMC has changed over the years the purpose of checkoff funding is still to make research at the Missouri Agricultural Experiment Station more responsive to farmers at the farm level.

Strategy

The means for achieving these research objectives was to create a producer funded self help program that would raise money through assessment of all soybean farmers. The issue of increasing University responsiveness just mentioned and the following discussions of "freeriders" and "leveraging" were, and still are, integral components of this strategy.

Freerider Problem

In order to achieve the goals of promotion and research early proponents of a soybean checkoff had to confront the issue of freeriders. A freerider is anyone who doesn't pay the cost of a collective action yet still enjoys the benefits of that collective action. As more people began paying voluntary checkoffs through the 1960's and early 1970's, there was increasing consensus that there was a large freerider problem that needed to be dealt with in order to create a more equitable and effective checkoff system. Legally, the only way to make the checkoff payments mandatory was to use the power of the state of Missouri in the form of state sanctioned merchandising councils. In addition to opposition from some farmers there was, throughout the 1970's, a number of soybean elevators (the first points of cess collection in a checkoff scheme) also against the checkoff scheme. They perceived the checkoff as increasing their workload. After the state mandated referendum passed in 1979, all of the elevators along with all soybean producers were forced to cooperate.

Leveraging of Funds

A key component of MSMC is the notion of "leveraging" public resources with private money. This public-private dynamic can be illustrated by examining MSMC's relationship with the University of Missouri. MSMC funds research projects through a process in which research projects are granted to a public research institution, usually the University of Missouri (MU). MSMC tries to adhere to a policy of paying only direct costs of research projects instead of indirect costs such as overhead, salaries, building, and equipment. In this way checkoff funds can leverage current MU research center capabilities. Since the MU Experiment Station pays for salaries, building, and equipment but provides little or no actual operating money, a MSMC grant that provides operating capital can often make a substantial difference.

The notion of leveraging existing research infrastructure through checkoff dollars is popular among producers who do not want to feel that their checkoff money is going towards something they're already paying for with their regular tax dollars. A breakdown of MSMC research grant money awarded to the University shows the following allocation pattern: 71% of the MSMC research money goes towards research assistant and technician salaries, while 13.2% goes for supplies, 6.9% for travel, 4% for equipment, and 2% miscellaneous (NEED TO CITE Wiebold?).

MSMC views technician and R.A. salaries as direct operating costs not as indirect costs. One exception to the MSMC's policy of not paying indirect costs of researcher/faculty salaries occurred in the mid-1980's when the Council persuaded the College of Agriculture to start a soybean extensionist/researcher position which the MSMC fully funded for three years until the College began paying for it.

Activities

MSMC has surveyed its members to determine what programming areas they are interested in and what levels these different sectors will be funded. The MSMC has, for the most part, lived within these survey results: 2/3 on market development and promotion and 1/3 on research. Regarding research funded by MSMC, 60 to 70% of Council funds have been spent on production research, with 2/3 of that amount going into applied fields with specific payoffs, such as breeding and genetics, and the other third spent on pure science projects such as gene mapping and molecular biology. The other 30 to 40% is spent on utilization research projects designed to increase the consumption of soybeans. Examples of this type of research would include projects in soydiesel, soyfoam, and food product research.

STRUCTURE OF MSMC

Composition of Board

The MSMC Board of Directors, which meets at least four time per year, is a very active Board. All 13 members of the Board are Missouri soybean farmers. Major decisions such as budget formulation and resource allocation, selection and review of research and promotion projects, and general strategy outlines are discussed and voted upon by the full Board. In addition, there are three ex-officio, non-voting members (MSMC chief executive and two representatives of the MU College of Agriculture). Board members are nominated to the board in one of two ways: 1) 100 signatures of individual producer; and 2) nomination by a major farm group. The overwhelming majority of MSMC members are nominated by the latter method. Farm groups, such as Missouri Farm Bureau, National Farm Organization, and Missouri Farm Association, are most active in this nomination process. Voting is conducted by the Missouri Department of Agriculture at county offices around the state.

Merchandising Council Creation

Enabling legislation for the soybean checkoff comes from Missouri State Statute. The process of creating a Merchandising Council, as outlined in this state statue, included the following steps:

- Petition of growers to determine support for a referendum. Five percent of the total soybean producers in the state is needed for this. The Department of Agriculture then telephones 10% of the people listed on this petition to verify that they correspond to the name on the petition and are in fact soybean producers.
- Missouri Secretary of Agriculture holds public hearings and approves or disproves petition. A sample of 20% of the petition signers are then contacted in order to verify information placed on their petition.

State Government Functions

Additional role/functions of the state government as it relates to MSMC include:

- Administration of voting on all checkoff related petitions, referendums, and elections according to state statute. Since there are no lists of soybean producers within the state, part of this administration process entails calculating, through the use of census data and USDA statistics, the total number of producers in the state.

- Identification of first points of sale and collection of checkoff receipts.

All assessments collected by the Missouri Department of Agriculture are paid to the state treasurer and credited to a special Commodity Council Merchandising Fund. State statutes specify these "pass through funds" can only be used for the benefit of the state and federal checkoff programs. In addition to specifying that no money from the commodity council merchandising fund may be transferred to the ordinary revenue fund of the state treasury, the state treasurer is mandated to submit a statement to all checkoff organizations showing that all receipts, refunds, and balances have been credited to the commodity council merchandising fund (MSS 275.350.). In the case of soybeans, the treasurer must adhere to overriding federal checkoff regulation and show that one-half of the total soybean checkoff receipts (minus farmer checkoff refunds which they also administer) are given to the MSMC and one-half to the USB, the federal checkoff organization. The state charges a nominal administrative fee for the services it provides. This fee, presented in a budget to the merchandising councils, is calculated to provide the Department of Agriculture with one and a half full time employees to help administer the program. In 1994, the state of Missouri collected $9 million in checkoff receipts from nine different checkoff organizations. The Department of Agriculture deducted $55,000 or 6/10 of 1% of this total for administrative fees. The state thus helps subsidize and efficiently run the checkoff programs since the cost to individual checkoff programs, if they themselves were to pay for administration, would certainly exceed $55,000 per year.

Federal Government

There are currently fourteen federal checkoff programs covering different commodities in the U.S. In 1992, these programs, through commodity specific assessments of farmers, generated over 500 million dollars for commodity, research, promotion, and advertising. Although state mandated checkoffs have roots in the 1930's, federal involvement with checkoff programs did not begin until the 1950's when the National Wool Act was passed (1954). The national cotton checkoff (1970) served as the primary model for federal checkoff programs until 1983 when federal legislation created a national dairy checkoff.

The 1983 legislation developed a new format for creation of federal checkoff programs. Whereas earlier checkoff programs utilized up-front referendums and assessment refunds, the 1983 dairy checkoff legislation mandated the elimination of producer assessment refunds and the use of a delayed referendum. With a delayed referendum, a checkoff is formed without an initial farmer vote, however, farmers must vote to retain the checkoff after it has been in operation for 2-3 years. The major commodity checkoff programs passed since that time (pork, beef, and soybeans) have all utilized delayed referendums. Also, beginning in 1983 all of the federal checkoff programs, with the exception of watermelon, eliminated full refunds to producers.

In 1990, the U.S. Congress created a nationwide soybean checkoff program with passage of the "Soybean Promotion and Consumer Information Act." The Act authorizes "the establishment, through the exercise of the powers provided in this subtitle, of an orderly procedure for developing, financing through assessments on domestically-produced soybeans, and implementing a program of promotion, research, consumer information, and industry information designed to strengthen the soybean industry's position in the marketplace, to maintain and expand existing domestic and foreign markets and uses for soybeans and soybean products, and to develop new markets and uses for soybeans and soybean products (P.L. 101 Sec. 1966)."

The regulations and requirements of this federally mandated program supersede various aspects of Missouri's state mandated programs. For example, a standard rate of assessment and method of recall (referendum) was implemented nationwide. In accordance with the Act, 50% of the assessment proceeds are returned to Missouri for use by the MSMC. At the national level, the United Soybean Board utilizes most of its checkoff dollars for creation of new global markets and promotion, while the MSMC focuses more on research and promotion of Missouri soybeans. The state of Missouri and the MSMC are still responsible for much of the administration of cess collection and referenda. In addition to providing the enabling legislation for mandatory collection of soybean checkoffs nationwide, the federal government, through the United States Department of Agriculture, conducts random audits of all state and local checkoff organizations. These audits ensure that there is no misappropriation of funds and to guarantee that checkoff money is only used for its intended purposes. The federal statute creating the soybean checkoff program gives the U.S. Secretary of Agriculture authority to terminate the checkoff program.

Research Program Administration

One of the challenges before any checkoff organization is to develop mechanisms that permit producers to control the allocation of research funds. The MSMC has developed an effective means of administrating their research program so that the projects that it funds address both farmer's needs and the demands of scientific rigor. Three bodies are involved in the evaluation of research proposals — the research sub-committee, a research advisory council, and an outside assessor representing the American Soybean Association.

MSMC Research Sub-Committee

A sub-committee elected by the MSMC board at large is charged with the task of evaluating all research pre-proposals received by the MSMC. Members of this committee are usually members perceived to have more technical knowledge due to their education and/or experience. The pre-proposals are rated into categories of Definite Interest, Some Interest, No Interest. In the end, this committee rank orders all of the "Definite Interest" and "Some Interest" pre-proposals for presentation to the full board. At this point, the Board decides which pre-proposals have sufficient potential to warrant requesting a full proposal.

Research Advisory Council

After the first year of MSMC operation, a peer review panel was requested by the board because they as farmers did not feel comfortable and/or qualified to evaluate some of the more complex research proposals. The result of this request was formation of a peer review committee comprised of researchers within the MU College of Agriculture that are familiar with the MSMC and their research priorities. These scientists evaluate and rate all university pre-proposals before they are forwarded to the MSMC. The highest rated proposals are approved for submission to the council while the rest are either dropped from consideration or modified.

Outside Assessor

In addition, the MSMC utilizes a research consultant from the American Soybean Association to assess university pre-proposals. This consultant examines the proposals for scientific soundness and applicability to MSMC needs and goals. This consultant also supplies an informed opinion on how research proposals fit into the national effort. The consultant stays informed on exactly what kind of research other states are doing and is thus able to answer questions such as: Is the proposed research duplicating research that is being conducted and thus obtainable elsewhere? Does the proposed research complement other research being conducted elsewhere? The role of the assessor is to ensure that research is not duplicative through his/her knowledge of the literature.

Granting Process

Research agreements between the experiment station and the MSMC are reached in the following simplified manner:

- The Merchandising Council approaches the MU Experiment Station with a given amount of money for research. The council also presents a list of grower's research concerns and priorities.
- Researchers look at the amount of money to be spent and research interests of the Soybean Council and return with a pre-proposal.
- Researchers with good pre-proposals are asked to submit formal research proposals with budgets. These researchers usually give some type of verbal presentation before the council.

- The best proposals are funded by the Council. When money is tight the Council prefers to fund a limited number of researchers and projects full-time rather than funding a number of projects at reduced rates.

KEYS TO ORGANIZATION

The preceding section provides an overview of the organization. This section focuses on relevant issues related to the creation and successful functioning of MSMC.

Marketing Structure

A well established marketing system is often an important feature of an efficient, cost effective checkoff system. A good marketing structure can be characterized by the presence of “bottlenecks” or centralized first points of sale which in turn are dependent upon factors such as commodity trading volume, organized market structures such as elevators and warehouses, and the need for commodity processing. Missouri soybeans are a commodity that is ideally suited for a checkoff because of the large volume of traded soybeans, an extensive system of elevators, and the need for processing of the soybeans. Soybeans are better suited than many other crops because they must be processed before they can be effectively used. Thus, if unprocessed soybeans could be fed directly to livestock, as is the case with corn, it would be more difficult to levy a cess on farmers in an equitable manner. In the case of soybeans, the need for processing helps creates and maintains the need for a standardized first point of sale.

A marketing system with collection points is necessary for a successful checkoff. Where this situation does not exist, the body responsible for checkoff collection (the Missouri Department of Agriculture, in this case) would be forced to go straight to the producer for the assessment. The administrative costs for this type of fee collection operation would be very high. In the case of a commodity where there are many private treaty transactions and few or no collection points, the State of Missouri officially discourages such commodities from creating a checkoff because of the prohibitively high cost of administration.

Communication

One of the most important criteria of a successful checkoff creation and operation is the ability of leaders to communicate with fellow members. The main lesson that checkoff proponents say they learned from the two soybean referendum defeats in the 1970’s is that face to face communication with farmers is absolutely critical. This kind of hands-on interaction is considered necessary if farmers are to understand and appreciate what a checkoff program will do for them. Pamphlets, posters, and other forms of public relations are considered to be useless. MSMC leaders note that in counties where there was not an effective effort made at communication at the local level the referendum not surprisingly lost.

For the last state soybean referendum, the MSMC organized what was called a “saturation campaign” in order to build some kind of grassroots support for the referendum. They did this by getting interested farmers in a certain area committed to the cause and then having these farmers talk to as many neighbors as possible. Farmers identified as “saturation” campaign organizers were encouraged to identify six or seven farmers supportive of the referendum in each county and have those farmers talk to ten to fifteen other farmers in their area. In addition, notebooks were printed up for farmer/representatives to give to those farmers with whom they spoke. These notebooks contained simple facts like information regarding worldwide operations (proposed overseas markets) and a simple budget for the proposed merchandising council. One key MSMC organizer noted that in order to convince a farmer to take an hour off and drive 30 miles to the county seat in order to vote he really needed to have his question of “what’s in it for me?” answered. And this, most MSMC members agree, can only be answered through “face to face” contact.

Checkoff research in and of itself is also beneficial because it opens up the communication channels between researcher and producer. On the producer side, farmers become more sophisticated about the terminology and processes of science. They can also become more understanding of the need for time consuming processes such as crop trials and replication. On the research side, scientists become more aware of the viewpoints, needs and language of soybean farmers.

Time Commitment

It is important to note, as most MSMC members did, the large amount of time sometimes needed to generate support for the checkoff idea. The soybean checkoff referendum was passed in Missouri only after two defeats, and ten years of organizing. Farmers began talking about the need to organize and assess themselves for the purposes of commodity promotion, market expansion, and research in the 1960's. Yet it was not until 1970 that the first soybean referendum came up for a vote; and it was not until a decade later that the referendum actually passed. Thus the Missouri soybean referendum came to fruition only with the second generation of farmers supporting the checkoff. There are several reasons why it took organizers almost a decade to pass the soybean referendum. One of these reasons was, for the most part, farmers in the 1970's were not familiar with self help programs like the proposed soybean checkoff and thus equated it with a tax — which in Missouri is often a political death knell. One MSMC member noting the extreme fiscally conservative nature of Missouri farmers and their perception of the checkoff as a tax said, "It was somebody taking their money and it did not matter who it was, government or private organization." This serves to highlight the importance and need for the tremendous education campaign that soybean checkoff supporters mounted.

Volunteers

MSMC relies heavily upon volunteer support from its members. Passing of the statewide soybean referendum relied almost exclusively upon volunteer work. Key supporters of the referendum talked about donating 300 to 400 hours of their time within a time span of three months in order to ensure passage of the referendum. Considerable time is also required of Board members who are not paid for their services, but are reimbursed for travel expenses.

Leadership

Most of the MSMC board members are good leaders in the sense that they are very involved within different civic organizations within their communities. Many are also active in other farm organizations such as Farm Bureau and Missouri Farm Organization. Several Board members have gone on to head up national commodity organizations, such as the United Soybean Board. In addition, there is consensus among most members that soybean producers from the southern part of the state have been an especially proactive and visible element of the MSMC leadership. There is no doubt several reasons for this phenomenon, but the one that has the most bearing on this case is the fact during the initial soybean referendums these farmers were, because of their firsthand experience with the cotton checkoff, the only producers in the state with firsthand experience regarding checkoff operations.

Separation of Checkoff and Farmer's Organizations

Many MSMC members said that it was beneficial to have the state soybean commodity organization, Missouri Soybean Association (MSA) separate from the MSMC. Although the two organizations share the same building and often work together closely, they are separate independent organizations. The MSA is supported by annual dues paid by its members and engages in political work and lobbying. The MSMC sometimes contracts to the MSA for promotion work. This split between the organizations acts as a kind of check and balance in that producers are assured that their money is only used for the stated purposes of promotion and research. The separation makes both organizations less vulnerable to the kinds of attacks from suspicious producers that have weakened other commodity organizations. Proponents of this dual type of organization also point out that having two separate organizations with different farmer represented boards creates twice as much leadership and organization for that commodity within the state. In these ways, the organizations are stronger as separate units than they would be if they were combined.

Delayed Referendum

The use of delayed referendums can greatly improve the chances of passing a referendum to start a checkoff program. With delayed referendums a program is established without an initial member wide vote and then allowed to operate for a number of years during which time it is fine tuned and evaluated by producers. At the end of this trial period, usually two or three years, producers vote on whether or not to continue the program. Many MSMC members believe that the National Soybean referendum that passed in 1993 (and raised the assessment rate for farmers in Missouri) would not have passed as an up-front referendum. The added time, in this view, gave checkoff programs the opportunity to educate and build trust among its members.

Appropriate Research/Responsive to Farmers

The Council has tried to fund research projects that have recognizable rewards for their members. One example of problem driven research funded by the MSMC is the soybean cyst nematode studies that it has helped fund. This virulent pathogen first appeared in southeastern Missouri. Over the last couple of years MSMC funded university research to develop resistant strains of soybeans to deal with the problem. In this case, it is very easy for MSMC members to see how research results are helping them. Similarly, utilization research such as the development of soybeans as a fuel alternative (soydiesel), has received support from soybean producers because of its apparent viability and potential to increase soybean consumption.

Because MSMC funded research areas are selected by producers themselves, this research is more responsive to farmer's needs than other types of university research. Much of the agricultural science done at MU and other Land Grant Universities is designed to push back the frontiers of knowledge. Most MSMC members agree that this type of knowledge is good, indeed essential, in the long run. However, such research does not address producer's immediate problems. The MSMC has been especially effective in making MU researchers more responsive to the actual problems of soybean farmers. In the past there has been a certain tension between the MSMC and the University because many of the pre-proposals submitted to the MSMC were inappropriate in the eyes of the MSMC. Researchers in these situations failed to produce proposals that addressed the stated needs of the MSMC. In other cases researchers attempted to "piggy back" MSMC research needs onto their already existing and often unrelated projects.

Over the years, however, the dialogue between University researchers and the MSMC has helped ameliorate this problem. In addition, the MSMC has held several high level meetings between the University and the MSMC to discuss ways in which the College could become more oriented towards the applied research problems facing farmers. In this way, the MSMC has been able to influence the University research system in an area that needs improvement, i.e. researcher sensitivity to actual producer problems. At MSMC board meetings where university research pre-proposals are discussed, the fact that board members are also soybean farmers is evident. Members, citing experience with their own farms and those of neighbors question how proposed research will help them. Members also reject a number of proposals on the grounds that they are not applicable to producers needs. Other proposals are accepted subject to modification of the research design and/or research objectives. University officials present at these meetings either explain proposals or return to the University with the MSMC feedback in order to help researchers design projects that better fit the needs of the MSMC and its clients.

Fiscal Accountability

Although the Missouri State Department of Agriculture and USDA provide oversight through periodic audits, the real accountability built into the MSMC is created by farmers electing farmers to represent their interest on the MSMC Board of Directors. MSMC also prides itself on its openness regarding financial affairs. MSMC conducted annual CPA audits before they were required to do so by the enabling legislation of the 1993 National Soybean Checkoff Act. At the end of every year, the MSMC Board and staff hold a public meeting to review the prior year's, budget and work out a new one for the upcoming year. The financial transparency of the organization is evident at these meetings in which the annual budget is discussed and voted upon. All financial documents (budgets, income statements, balance sheets) are available upon request to interested members.

CONCLUSIONS

The MSMC illustrates several points that are relevant to African organizations interested in the formation of checkoffs. These items are summarized below.

Accountability

The MSMC effectively reflects farmer research priorities and provides its members with an accounting of the money that it spends. The structural checks and balances created by the audits and accounting system of the organization together with the relatively minimal administration and oversight of the Missouri Department of Agriculture and USDA enhance accountability. However, the primary means of creating accountability is through MSMC's ensuring farmer participation and through the involvement of farmers on the board of directors. Many of the issues identified in this report as organizational advantages such as effective communication, volunteerism, leadership, and MSMC as official and effective representation of soybean farmer's research needs are keys to creating accountability and are the result of farmer participation at some level. Indeed, one could attribute the two defeats of the MO Soybean referendum in the 1970's to checkoff leaders to assure farmers that the system would be accountable to them.

Voluntary

MSMC is a voluntary organization, in the sense that a majority of Missouri producers voted to create the checkoff. In a later national referendum, producers reaffirmed their support of the soybean checkoff plan (Missourians voted 63% in favor of the national checkoff as opposed to 54% in favor nationwide). The soybean checkoff has also been voluntary in that producers not wishing to participate in the program can get at least a partial refund of their contribution. The soybean checkoff has a limited refund policy where no more that 10% of total checkoff collections nationwide can be paid back to farmers in the form of refunds. If total refund requests amount to less than this 10% threshold then a full refund is paid. If refunds requests add up to more than the 10% amount then refunds are set on a prorated basis with farmers receiving a partial refund. The refund provision may be eliminated in the near future through a referendum.

Institution Building

With soybeans in Missouri, there was a situation where there was a marketing structure very amenable to a checkoff system and a great deal of interest in problem driven, producer funded research and promotion among producers. Indeed the MSMC is considered by many to be the best organized and most effective checkoff organization in the state. Yet the creation of this organization still required a creation process of at least ten years. One key MSMC organizer, noting the decade long struggle to pass the Missouri Soybean referendum said, "Sometimes a good idea just is not enough. And with us (soybean farmers) it just took time." He added that this time factor could be "painfully slow." The implications of this time factor are that the process of checkoff creation may not necessarily be a quick fix proposition to the problem of inadequate agricultural funding.

A Multiple Task Organization

MSMC like most U.S. checkoff programs is a multitask organization. Soybean producers receive a steady stream of benefits from commodity promotion, market expansion, extension, and research in return for their contributions. Since research is a long term activity, it is crucial that the checkoff organization also provides contributors with visible short term benefits. This is most easily achieved if a checkoff organization provides services in addition to research funding.

State Function

State and federal governments play a small though significant role in the operation of the MSMC and other large scale checkoffs. Perhaps the most important function of the federal government is the creation of enabling legislation allowing all soybean farmers to be assessed a portion of their profits from the sale of soybeans. The state of Missouri, in one of its more important functions, currently subsidized much of the cost of checkoff cost administration. Persons wishing to create this type of producer funded agriculture research organization elsewhere — especially in the developing world, must answer the following questions concerning the state role:

- How large of a state role is necessary and/or desirable?
- How much more costly might state participation in checkoff administration (assessment collection) be in commodity markets that do not enjoy a large economy of scale like soybeans?
- Does the state need to subsidize and in some way participate in assessment collection? If so, is there a good way to prevent the state from accessing checkoff funds?
- Are there situations where the state may need to take on a stronger oversight function than the one evidenced by the state in this case?

Appendix C:
ITT Sheraton's Going Green Program

ITT Sheraton-Africa has a program that illustrates the potential for checkoffs to support environmental protection in Africa. Approximately one dollar per night is added on to each guests bill to environmental projects. The program is voluntary. When a guest checks out of a Sheraton Hotel they may elect to have the Going Green program dollars deleted from their hotel bills. For every dollar donated by guests of ITT Sheraton, the corporation donates an additional dollar. Funds generated by the program are spent on environmental projects in the countries where they have been donated.

ITT Sheraton's Going Green Program was initiated in 1990. Seven hotels in six countries participate in the program. Since 1990 more than $300,000 has been generated by the program. Project funds have been used to support wildlife, to provide vehicles and equipment for national park maintenance and for anti-poaching guards, for protection of the mountain gorilla, for urban recycling programs, and for environmental education programs.

RELEVANCE OF THE GOING GREEN PROGRAM FOR CHECKOFF DEVELOPMENT

Sheraton's Going Green Program is not a checkoff. It is managed by a large corporation and is not a participatory organization. The success of this program does however indicate that a checkoff program based in the hotel industry has excellent potential for supporting environmental protection. A significant proportion of hotel guests are interested in environmental protection and many people travel to Africa to see its natural attractions. The hotel industry thus shares an interest in enhancing environmental protection with the public agencies charged with environmental protection.

If the hotel industry supports a checkoff, the costs of collection are minimal. In the case of a hotel based checkoff, even programs like ITT Sheraton's which give on the spot refunds would generate large amounts of funds if they were instituted on a national or regional basis. It would be difficult for international business travelers and tourists to have representation on checkoff board or vote for the establishment of a checkoff. However, the direct representation of contributors is not crucial if refunds are easily obtained. Indirect representation of contributors is possible by having some representation of local and international conservation organizations on the boards of the checkoff organizations. In some cases however, the checkoff may be a hotel industry checkoff. That is to say, the industry may vote to set aside a modest sum, i.e., one per cent of room rates per guest per day to support environmental protection. In this case, the voting contributors would be hoteliers.

U.S. Agency for International Development
Bureau for Africa
Office of Sustainable Development
Productive Sector Growth and Environment Division
Room 2744 NS
Washington, D.C. 20523-0089